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Superfluous Interference.

Cardinal School Pests

Mrs. Tott and the Amiable Principal

Johnathan De Batt was a school principal who prided himself, not only upon his scholastic learning, but upon his suave and amiable nature as well. He often boasted that there was no patron with whom he could not get along in one way or another.

A man covers quite a bit of territory in making a boast of that kind in Gumbo Center, for that little village is filled with all the discordant elements of a score of states—old timers, sheep men, cattle men, honyockers, and rustlers. You would not believe so much pure cussedness could exist in such a little place of a hundred souls.

But strange to say, Johnathan made good his boast. That is, he got along with everyone with the possible exception of Mrs. Cato Tott, and he agreed with her better than any other teacher ever did. By this you will perhaps gather that she was something of a problem, and I shall not contradict your opinion. She was not as vindictive as some Gumbo Center folks I could mention, but she was by far the most outspoken, and the quickest to get around to see the folks she wanted to talk to.

It would have been easier for the teachers if Mrs. Cato Tott had been a spinster or a childless widow, but she was quite the contrary. She had five little images of herself—five ravlin's off the old darn—as local wit had it.

Cato Tott, himself, who does not figure largely in this tale, took little part in upbringing his children. He spent most of his time at his sheep ranch some miles from town. His many bands of sheep occupied his whole attention. He worked among sheep most of his waking hours; he talked sheep whenever there was anyone about to listen; I guess he even dreamed of sheep at night.

So the care of the children fell entirely to Mrs. Cato Tott and public sentiment leaned to the belief that she was not equipped for the task. Beyond argument, she lacked dignity and forbearance and she was frightfully untidy. In fact, her untidiness was phenomenal.

To see her hastening across the prairies you got the impression that she had just endured a small tornado—an impression of divers garments hastily flung about her; loosened and fluttering in the gale. Her condition was not brought about by poverty, for her husband owned more sheep than he could count and more land than you could ride around in a day.

Say this in Mrs. Cato Tott's favor. She took her duties seriously and she was willing to fight for her little fellows much oftener than the occasion demanded.

For the first few weeks after Johnathan De Batt came to Gumbo Center, Mrs. Tott was the soul of friendliness. She would step out on the back porch to wave at him as he went by on the way to school. Several times she ran out to tell him about something or other relating to the school. But by degrees her friendliness waned. She got so that she would nod curtly at him when they met. Quite as often she would scowl at him. Johnathan could not figure out the reason for the change until one day the primary teacher came up to his office.

"Mr. De Batt," the teacher said, "I have had a very insulting note from Mrs. Cato Tott."

For a minute the principal sat drumming his huge fingers on his desk.

"When did you get this note?"

"She ran out and handed it to me when I was going home last night."

"Let me see it, will you?"

The teacher handed Johnathan a crumpled sheet half covered with writing done with a blunt pencil. He read it through with puck-

ered brows and then sat drumming on the desk with his fingers again.

"I presume, now, that you were very much incensed when you got that note."

"I certainly was."

"And if you confess truly, you will admit that you have already spent quite a bit of thought in composing a very pungent answer. Eh?"

After a second's hesitation, the teacher admitted the charge.

"Now I would quash that answer, if I were you," Johnathan advised. "I often get notes of that kind, and I make it a point never to answer them. I wouldn't give such a letter the dignity of a reply. People will say things about a teacher—things which often come on the impulse of the moment. Chances are, Mrs. Tott is already sorry she sent that paper to you. If you answer it the way you had planned, it would only make the matter worse."

The teacher was satisfied. She went away, and Johnathan read the note again. The paper was wrinkled, and the finger prints around the border gave mute evidence of the labor Mrs. Tott had expended in the composition. It set forth, in no uncertain terms, that Mrs. Cato's children had been subjected to abuse from other children on the playground, and, she concluded, "if there ain't teachers enough over there to see fair play, I will come over and take a hand in the fun myself."

The primary teacher took the principal's advice, but the effect upon Mrs. Cato Tott was quite opposite from what he had foretold. She waited three days for an answer, and then came over to see the principal, bursting in on him just as he was conducting a class. He dismissed his grinning students into the assembly room and sat drumming with his huge fingers on his desk waiting for Mrs. Tott to subside.

"Tutt, tutt, Mrs. Tott," Johnathan admonished after she had told her story three times hand running. "I wouldn't worry myself like that if I were you."

"I shan't have it," Mrs. Tott exclaimed for the fourth time. "I shan't have it. These kids have got to let my children alone."

"I don't think the other children mean to impose upon yours. They just—"

"I tell you they have been calling my children names." She maintained this point in a voice three times loud enough to be heard. "They have been calling my children 'Funny Face!' I shan't have it!" By degrees Johnathan De Batt got the irate woman to talking a few octaves lower. "Every child on the playground has a nickname given to him. They all do. I used to have one myself," he explained amiably. "If a child resents his nickname they give it to him anyway. The best way is to let these little fellows settle those childish things among themselves."

"If I should interfere as you ask me to, I would only make the burden that much harder for your children to bear. The others would call them nicknames behind my back. And then, off the playground I have no authority. If I could succeed in stopping the practice here at school, the other children would make up for it out of school."

By degrees Mrs. Tott was quieted. Johnathan argued with her fully an hour, at the end of which she went home, to all appearances, perfectly satisfied.

I think she really was satisfied. Again she took to waving at the professor from her porch as he went by on the way to school. The affair of the nicknames was completely forgotten.

The principal's amiable disposition had triumphed.

Then mumps broke out in the Tott family and the children were kept out of school. But that does not mean that they were kept at home. Far from it. Mrs. Tott had been active too long to endure sudden captivity. She ran about from house to house just as she had always done—with as many of her offspring as were well enough to follow—at her heels. The result was evident. The disease spread. The school was closed by the county health officer.

Johnathan had a four-year-old child of his own and, after the school was closed, he spent most of his time trying to keep her away from the mumps and the mumps away from her. He gave strict orders that his daughter should not go out of the back yard. He also let it be known, in his amiable way, that no subjects to the disease would be welcome. And those aware of the vigorous habits of little children will agree that the principal had his hands full.

The neighbors were inclined to respect the wishes of Johnathan De Batt, but not so Mrs. Tott. One afternoon she passed the back yard where he and his little girl were playing, and seeing that the principal returned her friendly wave, she turned about and came back where he was, with four little Totts tagging at her heels.

Johnathan met her outside of the yard.

"Your children have the mumps?" he asked.

"Oh, they're almost over them, thank goodness," she said. "The swelling is most gone now. Here, Harvey, show the professor your lump."

Johnathan gravely inspected the lump on Harvey's jaw. "I was aiming to keep my little girl away from the mumps," he said tentatively.

"Oh you don't need to worry over that. It don't hurt them any. Mine have all had it, and I'm glad of it. Is Mrs. De Batt in the house? She promised to give me an apron pattern when she got done with it."

"I would a little rather," Johnathan explained apologetically, "I would a little rather—er—that my little girl should not get the mumps."

"Ain't that funny? I heard say you aimed to keep out of it. But you don't need to be afraid. They will get those children's diseases sooner or later and the quicker they get over it the better." She gathered up two little Totts in each hand and started into the house after the promised apron pattern.

I would be inclined to reject the account of the rest of that conversation, in view of Johnathan's well known disposition, but it was given me by neighborly gossip which one must never disbelieve. Neighbors who overheard him and witnessed his actions, say that brother Johnathan gradually turned a deep purple. He sputtered and swelled with anger, as though he had suddenly turned into a pneumatic Goliath in imminent danger of bursting.

"Garrump!" said he, "Garrump! If you don't take those little infested rascals of yours out of my yard I will throw all five of you over the fence."

Unprofessional conduct, of course, especially when coming from one who aspired to diplomacy as Johnathan De Batt did. Yet it was excusable, in a way, for Mrs. Tott had been a sore trial. Johnathan had tried every means to get along with that woman and was ready to confess, as he did to me afterward, that he did not understand the kinks of human psychology that kept her running hither and yon, fighting for her children when there was nothing to fight about. He did not understand her. Neither do you or I understand our next door neighbors no matter what we may claim.

So her next move surprised him. When Mrs. Tott saw the huge man towering over her like

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Teachers' Wages From the Viewpoint of Economics

William Estabrook Chancellor

All the authorities in the field of statistics agree upon these points: that prices are about sixty per cent higher on the average than they were in 1914, about twice as high as they were in 1900 and about three times as high as they were in the epoch 1880-85 when they were lower than at any other time later than the first years of the Civil War—1861-62. They agree also upon the point that in the main, the increase of prices is due to the vast increase in the circulating mediums of exchange—currency and checks. We now have almost four times as much currency as fifty years ago, and we use checks for business transaction rather than currency five times as largely. The wonder is that prices have not risen even higher and stayed up.

These authorities include the United States Labor Bureau and other federal government agencies, the staffs of various banks in great cities, various commercial concerns that investigate business affairs, and the faculties of universities. Their opinions on this point are unanimous, and the data are indisputable. It is easy enough, of course, to show in some lines that prices have fallen, and easy enough to show that some products unknown a few years ago, not to say several decades, are on the markets at low prices, their costs of production and their good qualities considered. But averages tell the story, and averages display the fact that for half a century prices have been rising, with but occasional setbacks and few great cuts.

On the question whether wages have risen correspondingly with prices, the authorities do not agree though the range of their disagreements is relatively slight. Some authorities insist that the rise in wages has been on the average almost equal to the rise in prices, while others say that wages have risen somewhat less than prices. Not even radicals believe that wages have fallen in the terms of the dollar.

Wages-in-currency should always be estimated by conversion into wages-in-goods. Likewise, savings should be so estimated. The man who in 1919 on \$45 a week saved \$3 a week, but who now on \$35 saves only \$2, is quite as well off in his present savings since prices have fallen since then fully 50 per cent.

Statisticians who have studied costs of living in all parts of the land have come to the common opinion that an income in currency of \$1,000 a year in the ordinary rural district buys as good a living as an income of \$2,000 in the large cities below the one million population mark. In a sense, of course, the two modes of living are incomparable. The rural man gets for his family fresh air, acres and acres of land, and a roomy house with a feeling of freedom, while the urban man has a daily paper at breakfast, a graded school for his children, a movie in the evening, and all day long the run of the markets in the many stores. With respect to the population numbering in between the rural districts and the large cities, these statisticians and investigators believe that life in even small cities in the same region greatly increases costs over life in the open rural spaces. The situation appears to be this, viz:

One thousand dollars in a rural district buys about as much livelihood as \$1,400 buys in the neighboring city of 25,000 people, \$1,700 in the city of 150,000, \$2,000 in the city of 500,000, or \$3,000 in certain very large or very expensive cities such as and including New York, Washington, Denver, and Boston.

Cost of Living and Wages

This immediately concerns teachers, boards of education, and taxpayers. One should not, upon



reading that the teachers of such-and-such a county in such-and-such a State are being paid \$75 a month and \$600 a year and that the teachers of eighth grade in such-and-such a city draw \$2,500 a year, immediately jump to the conclusion that the former are underpaid or that the latter are better paid than the former. It may indeed seem strange and even impossible to some that the teacher on \$600 a year is really doing quite well, while the teacher on \$2,500 is hard-pressed to make ends meet,—with precisely the same number of dependents to be supported in each case.

It is here that we come to the actual controversy over the matter of teachers' wages. *On the one side, it is argued that the cost of living of the teacher has nothing to do with the question of the wages to be paid; and on the other side, it is argued that the cost of living should determine the wages paid.* Recently, one of the great cities has discovered that a man with a wife and with two children requires for decent living as a teacher \$4,200 a year. To this various objections have been raised. One is that whether a man in teaching has a wife and two children or not is outside the province of the school board and the taxpayers. Another is that the man has as good right to ask the costs of support of seven or ten children as of two. Another is that the financial control ought, in sound ethics, to make it agreeable to rear as large a family as health and heredity allow. It is enthusiastically urged that most teachers above the lower elementary grades should be married men, and that the true inducement for such men is sufficient pay for the support of normal families. But against this it is argued that the nation could not possibly afford to run its schools with men teachers prevailing in the higher grades, other nations to the contrary notwithstanding.

The statisticians agree that the average total income of all the people of the United States as a whole now runs at about \$55,000,000,000 to \$65,000,000,000 a year. Nothing else in the field of wealth statistics is quite so important to know as this.

What the total wealth of our people is, statisticians do not agree, but such figures as those given out to the public for the past eight years as \$350,000,000,000 for the total wealth have been and are propaganda without good warrant. The highest respectable figures are \$315,000,000,000; even these are considered by most economists and statisticians as too high. The nation is perhaps worth now \$260,000,000,000 at present prices in gold. Our wealth is fully as great as that of Great Britain, France, and Germany combined; and probably greater. Our national income is far greater than the incomes of all these nations combined. And income is the important affair, not the capital value of our wealth.

In the average year, since the World War, we have been producing in the terms of the dollar of gold, something like \$60,000,000,000 of wealth. This means more than \$500 per capita for every man, woman and child. It

means also that all our workers, both wage-employed and the self-employed (like farmers and trades-people) who number about 40,000,000 persons, are producing annually an average of \$1,500 per capita. The average annual production per family is \$2,500. Few teachers' families have this amount.

Among these workers are more than a half million of school teachers, but their incomes have averaged only one-half the average incomes of all the working-people. This statement should not be confused with the current statement that the average wage-earner in America earns less than \$500, which is true, for the average income of all the working people includes the incomes of the business man and the capitalists.

Our National Outlay

This total income of \$60,000,000,000 a year, we pay out first in taxes to governments of all kinds—federal, state, municipal, schools included—about \$8,000,000,000. No statisticians place the figures lower, while a few write them at half a billion dollars more. This leaves on the average \$52,000,000,000 for private distribution and keeping.

Obviously when, in a prosperous year, we produce \$65,000,000,000 of goods and services, since our taxes run along about the same—with an average of slight increases and only in war times making great jumps—but in a bad year produce only \$55,000,000,000, we feel elated with the big surplus over government costs—\$58,000,000,000 as compared with the poor surplus of only \$48,000,000,000 in hard times.

Next, we pay out for rents of lands about \$7,000,000,000 a year, and this amount does not vary much from year to year other than that it shows a steady tendency to increase a little every year. But the rent bill is not highly variable like some of the other bills for distributing our national income.

Then, we pay out as interest on moneys borrowed on bonds and mortgages, on notes, and on goods something like \$16,000,000,000 a year on the average. This amount, however, is quite variable. In prosperous years, the interest charges run high, even as high as \$20,000,000,000, while in bad years the interest sums paid out run down to as little as \$12,000,000,000 a year.

Next come miscellaneous items, variously credited on the books by the financiers and statisticians—including usually insurance, advertising, charities, fine arts—of which the total runs something like \$3,000,000,000 a year.

It will be calculated by the thoughtful at this stage that already the books have shown an expenditure of about \$42,000,000,000 a year, and yet nothing has been allowed for three great costs—profits to business men, wages to wage-earners, and savings.

Obviously, we must throw out of the accounting at this point the wages already cared for in the tax bills. It is estimated that now in this country no less than 2,500,000 persons are drawing wages from governments—soldiers, sailors, teachers, and government clerks included. The remaining wage-earners of the nation are estimated at about 40,000,000 persons in ordinary years, and it is estimated that they draw in wages usually about \$12,000,000,000.

In this connection, it is expedient to note that the 7,000,000 farmers of the land are not included among these wage-earning workers, though the hired men of the farms are included. Nor does this total of wage-earners include about 350,000 business men, tradespeople, and capitalists.

In a good year, there remains of the total produced something like \$11,000,000,000, more or less, to go for profits, though from this must

be paid out soon a larger interest charge, as previously cited.

Savings in the Economic Sense

In respect to savings, we come to the first great danger in trying to understand the problem of teachers' wages—that of direct duplication. With this is associated the error of misunderstanding what savings really are, in the economic sense. All the savings of a people come from the elements of distribution, that is, from taxes, rents, interest, insurance, wages, and profits, and none come from distribution direct. In other words, we must first get our products before we can save them.

Moreover, much of the so-called "savings" as stored in various ways are not savings at all in the economic sense, for in this sense only that is saved which is a visible and a useful part of the national wealth. The man who buys a first mortgage already issued has indeed in the proprietary sense "saved" the funds so used, but he has not saved anything for the nation, which has no more and no less wealth than before. But the man who builds a \$10,000 house or a \$10,000,000 steel plant, has saved a new fund of national wealth; in the latter case, to be exact, he has gathered the savings of many into one great fund. So the man who lends a fund to another on a mortgage to help him build a home or a mill is making a saving that is of national moment.

The import of this in respect to the wages of teachers is that many who oppose their increase, say that such an increase reduces the opportunity of the nation to save its wealth. The bearing of this upon our problem will appear later. At this epoch, we Americans are in the economic sense, making considerable savings per year; that is, our national capital funds of wealth are increasing. We are getting more and better buildings, more and better machinery, and more and better apparatus and equipment; we are replacing wealth in many forms faster than we are wearing it out. This was by no means the case in the years of the World War, though wages were never at any time previous so high as in the years 1915-19, for during this war period we were wearing out and wasting wealth at a prodigious rate per year without replacements. By inflating the currency, we marked up the prices of our remaining items of wealth and imagined that the war had made us rich. This inflation was inevitable, but one unfortunate result is not yet cured, which is that the general public still thinks that "we got rich during the war and then got poor again." It is a conservative estimate that in actual goods we lost ground to the extent of not less than 25 per cent of our wealth in 1914 when the World War began.

It is worth while to know this, for it explains why the movement to increase the salaries of teachers after 1918 was thwarted and why in many localities salaries were reduced from their war standards. The greatest losses in wealth due to the war were in the rural districts and in the inland cities and on the West coast generally. Here and there a few cities on the East coast and elsewhere actually made gains in wealth, because of the war, that remain to this time; but such cities are few. The rusted machinery that made war engines is the visible evidence of the wasted wealth of the war period.

Last among the points of wealth-distribution after production is the profit-taking. Some years show not a dollar of net wealth gain for profit-distribution. Other years, the fabulous years of prosperity, show immense gains that are the property of relatively few persons, but nevertheless usually of no small indirect benefit to very many. It is estimated that, in a prosperous year, the wealth of the nation may increase even as much as \$8,000,000,000, which in the economic sense is the profit of the people

from their labor and capital. Of course, by no means all of this goes into private pockets; some of it goes into new school buildings, new post offices, new roads. It is doubtful whether the nation has ever seen a year when even as much as \$5,000,000,000 was saved from the profits of the profit-taking groups,—manufacturing and commercial corporations and individuals, farmers, contractors. Most of what capitalists get is mere interest; not much of it is profit from business ventures.

Teaching an Un-Economic Service

The product of the teacher is not for sale; it is not tangible merchandise. Teaching does not directly add to the wealth-production of the nation at the time. For a year, or even for two years, it is conceivable that we might employ all our teachers and school children in the production of goods and use our school buildings as mills and factories; and for some such period, we might make a very great gain in actual wealth. What would happen after a year or two of such neglect of the needs of children and youth as such for their own growth and life, any parent can foresee; as indeed can many another person.

Teaching is a non-economic service,—like preaching and housekeeping. Indeed, it is demonstrable that in the open country, four-fifths of all that men and women do is non-economic and that in large cities three-fifths is non-economic. One of the most important, if not the most important, of all the functions of humankind, the bearing of children, is non-economic.

And an important cause why the matter of teachers' wages is not generally understood is that we are always trying to apply to it economic notions that are not so applicable. It is not true that the wages of teachers are controlled by the universal law of supply and demand. First, the law is not universal. Therefore, it is not a law but only a trend, a tendency; in a sense, a general rule. Second, it does not govern the wages of public school teachers or of any persons in government service. This so-called "law of supply and demand" operates only in a free, open, and either periodic or constant market, and often then but imperfectly. Teacher-employment is in no such market. Few teachers move about from city to city in their service, and nearly all that do move, do so at a single time of the year,—the last month of the school year. There is a slight seasonal trend. But the market is not open because it is controlled, not only by laws respecting teachers' certificates and licenses, but also by social habits of rigid character.

Teachers reared and educated throughout their growth period in one city from kindergarten through normal school have no market for their services beyond the immediate vicinity. Moreover, few of these teachers wish to leave home. There is no supply of such graduates in a free market of the land, and there is no demand for them in any free market. They go automatically back into the service that bred them.

Teachers educated even in state normal schools have but limited markets in other states. The only teachers in a free national market in any real sense are the relatively few who have gone for graduate study to a few famous metropolitan universities, and even these find such a market only in the summer season.

Nearby cities within the same state show that in one case the average number of pupils per teacher is 50 while in the next city of size the average number of pupils is 32 per teacher; yet the latter city pays a somewhat higher average salary to its teachers than does the former. Obviously, the law of supply and demand is not working.

In one state throughout the school year 1924-25, several hundred schools were without teachers, yet there was a demand for teachers, and there was a supply of teachers. The failure of the law of supply and demand was in the inability of the school control to secure funds with which to pay such teachers. In this same state, hundreds of other teachers were still waiting in September to be paid for their last month's services in the former school year of eight or nine months. In short, the market for teachers is a controlled market, a closed market, and an annual market with a limited movement—in the economic sense, this is scarcely a market at all.

Therefore, the critics who say that, "If teachers were worth more money than they get, they would go and get it," are trying to use in an institutional field a notion essentially out of place in it. Public school teaching is not, in the economic sense, "a business," and nowhere are teachers as such accepted as "business persons."

Teaching Not a Free Market

The next proposition is that teachers' wages are not in competition with the wages of persons employed in the free markets. What men and women earn in other lines than government service—schools included—but slightly affects the wages of teachers. The man who has been a teacher for ten or twenty years cannot easily step out and become a plumber or a mason or a factory mechanic. It is far easier for a carpenter to become a railroader, than for a teacher. The building trades, the manufacturing trades, the transportation trades, the commercial trades have more or less interchangeable wage-servants. But the woman teacher of any experience who leaves teaching goes not into wage-service generally but into the home as a wife, and the man teacher goes into some other profession or into business as an employer or upon the farm as its head.

The reverse situation is far more striking. The carpenter, the mason, the plumber, the business man, the railroader, the farmer almost never looks upon teaching as an avenue of escape from his line, never after years of such experience. A social law controls here; once that the public has made up its mind that a man is a teacher, it insists that when he leaves teaching, he do something at least about, if not quite, as dignified and honorable. With exceptions, too few to count, the public does not admit into teaching men who have spent their later youth and early manhood doing things quite out of line with teaching. Ten years as a carpenter may indeed have been spent as honorably and as usefully for the social welfare as ten years in a schoolroom; but the public does not believe this.

Using census figures, one finds that the number of teachers of all kinds and grades exceeds the numbers of all physicians, lawyers, preachers, architects, engineers, and journalists, taken together. The services of physicians and preachers are non-economic; those of architects, engineers, and journalists are economic; and those of lawyers are economic or non-economic, according to cases taken. Transfers in and out of these professions into and from teaching are common enough. All those who live by non-economic services are examples of livelihood by social favor. Lawyers and architects, however disliked, may still find their services in demand because the former know the law and can win cases, and the latter know structures and can build them well; but the teacher who is out of social favor is soon out of employment as such. Closely considered, the work of the physician, of the preacher, and of the teacher, is all an affair of giving oral advice, temporary at that, to others. Far easier is it to sell a product to others than to sell advice.

Wages for Service

Wages for services are much harder to understand than wages for products. It is not difficult to see that an employer may be justified in paying in wages for labor a particular amount within the total received as the price of the product of that labor. A wage-earner does the paint job on a house for his employer. The materials cost (say) \$78; the price received by the contracting employer is \$315. Consequently, the employer may pay to the working painter, if he so pleases, even as much as \$237, in which case he would have remaining not a dollar for his own overhead or for profit. Usually, the contracting employer works on some such basis as a price that will realize for himself—overhead and profit included—as much as the wages of the worker; that is, he doubles the wages, and adds that sum to the estimated cost of the materials. Usually, therefore, on such a job, the wages of the painter will come to about \$115 or \$120—that is, again, about three weeks of work. Of course, here the product actually pays the wages.

But with wages for service, the case is that there is no marketable product out of which to pay the wages. Wage-services fall under several different heads. They may be performed to assist the management of an economic enterprise, like the services of a stenographer in a retail store. Again, they may be performed to assist a lawyer in his work for a client, who is himself in a real business of economic importance or character. And they may be performed for individuals in the supposed interest of an entirely different set of individuals or of the general public. The business man pays his stenographer as part of his overhead costs. The lawyer pays his stenographer as part of the charge that he is making against his client, the business man. To such wages, there are obvious limits. But what are the limits to the wages payable properly to teachers who serve the children of the general public at the cost of taxpayers, many of them not even resident within the jurisdiction of a board of education? Perhaps, not one of the board members pays local taxes. Perhaps, not one of them has a child or a grandchild in school.

Invisible Products of Teaching

The daily product, even the daily service, of the teacher is invisible. There is nothing to sell. A thousand teachers in a city may teach twenty-five thousand children. All that the parents, the taxpayers, the generality of the citizens see or can see is that the children go to school with more or less regularity, conduct themselves more or less well when before the public or elsewhere, learn more or less new things, improve more or less in health, and from time to time emerge more or less fitted to do something else than to go to school. Little as this is, it is more than most of the adults do in truth see about the product of the teachers.

Naturally, the board of education members turn to the higher officers of the schools—higher in the sense that they are closer to the authority of the public that guides and rules the school—for opinions as to the value of the services of the various persons whom they oversee in teaching. With all their experience and often superior abilities, even the best of the supervisors cannot know very much accurately respecting the values of the services of many different individuals.

How good a teacher is Miss A. J.—of Public School No. 7?

What shall the supervisor say? How can he himself form a worthwhile opinion?

The answer is a long one, quite technical, necessarily complicated, necessarily also somewhat outside the interest of persons who are not themselves teachers. The result has been as inevitable as it is logical; we have generally

turned away from endeavors to pay our teachers according to their relative merits and, provided that we keep them at all, we either maintain them for years and years at the same rate of pay or else increase them slightly in pay every once in a while. Occasionally, a teacher who is regarded as a failure is released from the school service. But even in the rural districts where change occurs usually every year, the value of the service rendered by the outgoing teacher is not considered. The habit is to get a new teacher; therefore, a new teacher, perhaps twenty years old and perhaps fifty years old, is secured.

The city rule is to keep the teacher unless there is some extraordinary cause for change; the rural notion is to change the teacher unless there is some extraordinary cause for retention. Therefore, rural teachers are knocking every April, May, and June at the doors of city school offices, asking for employment, while seldom does any experienced teacher from a city seek employment in a rural district. The defense against the rural applicants consists in technical rules of eligibility. Without such defense, the wage schedules of the city schools would be beaten down by rural applicants utterly ignorant of city costs and standards of living. And the next result would be that the city schools were being conducted by impoverished teachers unable to secure from reduced wages sufficient of the necessities of life as teachers to render satisfactory service. Exactly this has happened when reformers have broken down the city schedules from mistaken notions of economy.

Hence arises the movement to examine with care the actual expense of living in cities in order that the teachers of the public schools may not be undertaking to get along on too small rations for the ultimate good of the service. If there were a free and open market, such investigation would be both an impertinence and a waste of energy.

Four Economic Classes of Teachers

Among the things that we learn from investigation is this, viz., teachers may be divided with respect to their outgoes and incomes into these several classes:

1. Teachers who from their incomes derived solely as teachers support one or more natural dependents. These are the poorest of all.
2. Teachers who live exclusively upon their incomes as such but have no natural dependents.

3. Teachers who have incomes additional to those from teaching but who support one or more natural dependents.

4. Teachers who have incomes from other sources than teaching but no natural dependents. These in general are the teachers in easiest circumstances.

Cities and rural districts differ very greatly in respect to the percentages of persons on the teaching payrolls belonging to one and another of these classes. The generally diffused notion that all teachers are poor is far from the truth. Leaving out of consideration the city, county, and state superintendents among whom have been not a few rich enough to be styled millionaires without stretching the facts, almost every county and city has at least a small fraction of teachers whose outside incomes are larger than those derived from teaching. In most counties and cities, at least one teacher in four on the average has an income from sources other than teaching that amounts to not less than half as much as the salary from service.

Whether these wealthier teachers cause salaries to be less than they otherwise would be or more is a moot question that is frequently discussed. Undoubtedly, they enlarge the supply of teachers. But since teaching is not controlled by the law of supply and demand, enlarging the supply does not necessarily reduce the price of teachers' labor. On the contrary, it is argued with vigor that these teachers with independent incomes stiffen wages by their own independence, by raising the economic, and to an extent the social, position of all teachers, and by pursuing advanced courses of study and by going upon extensive travels and so elevating the public opinion of teachers as a class.

Our discussion concerns public school teachers, and does not concern immediately any other teachers. But it is significant that in more than one college and university, trustees have argued that no man be appointed to the faculty who has no other source of income than his salary. Let teaching be a service to the public of the better minds of the economic aristocracy; such is the argument. There is, in consequence, a steady drain out of high schools and normal schools and public universities into the colleges of men and women teachers with other means of support than the wage-service as such. It is argued that this drain tends to increase the wages of the remaining teachers. If so, the tendency is certainly but slight.

(To Be Concluded)

All Year Schools and the School Plant

Ben Peterson, Attendance Officer, Muskegon, Mich.

What would be the effect on school buildings if there were no period in the year when they could be repaired and renovated? On the surface this seems to be an easy question and as easily answered. If there were no period when they could be repaired and renovated, they would soon be filthy, insanitary, unsafe, untenable.

But like all other questions this one must be taken with a grain of sense, and we revise it and ask, How much would the twelve months' school interfere with renovation and repairs?

And I answer, "Not a great deal."

Schools are in session five or six hours a day, and five days of the week. In other words, we are using the schoolroom less than one-fifth of the time.

Many an industrial plant runs day and night for six or seven days a week, and still keeps clean and in ship-shape. We would be acknowledging gross mismanagement on the part of the schools were we to admit that we could not keep them renovated and in repair by taking advantage of that 138 hours per school week during which they are ordinarily unused.

The thrifty housewife keeps her home in good condition without sending the family out for a three months' vacation while she renovates and repairs; the factory resorts to no such annual expedient to keep the institution in repair.

The gang that finishes painting Brooklyn Bridge at one end today begins upon the other end tomorrow morning. The repair gangs of large city school systems are even now operating on a twelve-months' basis and find plenty to do the year round without seriously interfering with the routine of the schools.

Teachers would gladly move their children to the auditorium, gymnasium, or cafeteria for a Friday, if by so doing they could return to a renovated and redecorated room on the Monday morning following.

Furthermore, no one contends that every pupil and every teacher should continue through the summer months with one hundred per cent attendance. The summer term, at best, would find a smaller attendance, and in the ordinary building of 24 rooms, it is probable that but sixteen to twenty rooms would be forced to

(Concluded on Page 158)

A New and Practical Accounting Form for School Board Offices

Arthur J. Peel, Consulting Accountant, Boston, Mass.

From time to time, the annual reports of the U. S. Bureau of Education and the Research Bulletin, published by the National Education Association, give vital information concerning the subject of school costs. The value of this information for comparative purposes, depends entirely on its accuracy. The means adopted by the Bureau and by the Association for obtaining this cost information, is to send out a series of special forms requesting the local superintendents or secretaries of boards, to fill them out in accordance with the information called for. The original sources from which the figures are taken, are, of course, unknown to the Government and the Association officers, in the generality of cases. In examining the tables and charts shown in the last Bulletin sent me from Washington, I noticed the names of towns and cities which, from personal knowledge, I happen to know have inadequate systems of accounting; that is, cost-accounting, and in the very nature of things the school officers would not be in a position to furnish accurate information for the reports asked for; I mean by this, that the information given would not be the result of *accounting*, but of statistics based on unrelated and unproved reports from local officers. The editor of the Research Bulletin is evidently aware of this danger, for he says, that "An unqualified comparison of the financial situation in individual school systems, cannot be made on the basis of the figures given in this report." He then goes on to explain that not only is the same accounting system not used in any two cities, but that the interpretation of accounting classifications, varies in different cities. This is quite true, and the public accountant who has specialized particularly in federal, state, and local government accounting, including school systems, knows that the value of any accumulation of cost records, such as is brought together each year is seriously discounted by the inadequacy and inaccuracy of the accounts from which the information is derived. Nevertheless the information given in the bulletins is of some value, and since an increasing number of school boards and committees are realizing the importance of better accounting, and the imperative need for proper cost-accounting, we have reason to believe that the majority of the returns published are as accurate as modern accounting can make them. But out of 641 cities sending in returns to the N. E. A., only 411 could be used; the others all showed evidence of a lack of a real accounting system, and consequently could not be accepted as a correct presentation of conditions. A total of 2,500 blanks were distributed, but less than 25 per cent of the recipients made any return.

In conversation with public school officials, I have repeatedly been asked whether it is possible

to keep the books of the school district, city, or county, in a manner that will develop automatically the information required by the Federal government departments, and, in some cases, by the state education departments. To such questions I have replied that it is not only possible, but that it is the *only* way to keep school accounts. And for this reason, that the information asked by the Bureau of Education and the N. E. A. in the blanks, is precisely and essentially the information which every school board and committee, ought to have regularly, and at intervals not greater than once a quarter. Moreover, this information should be available not by district, county, or city, only, but it should be prepared and segregated in such a manner as to be comparable, school with school.

Now let us look for a few minutes at the classification called for by the N. E. A., and I may add, by every school authority and school accountant, who has the right conception of relative values in school expenditure, and the importance and meaning of each class of expense. We won't worry about the revenues as these are comparatively simple. Broadly speaking, a division along these lines is usually sufficient: State, Federal Government, County, Local Taxes, Sale of bonds, Sale of property, Tuition, and any other sources. Since costs are based on expenditures, it is the expenditures for school purposes with which we are most concerned. These are as follows:

EXPENDITURES FOR ALL SCHOOL PURPOSES FOR LAST COMPLETE FISCAL YEAR BEGINNING 19...., ENDING 19....

General Control
School elections
Board of education and secretary's office—salaries
Board of education and secretary's office—supplies
Other expenses of business control
Superintendent's office—salaries
Superintendent's office—supplies
Superintendent's office—other expenses
Compulsory education—salaries
Compulsory education—other expenses
Research
Other expense of education control

Instructional Service
Supervisors—salaries
Supervisors—other expenses
Principals' offices—salaries of principals
Principals' offices—salaries of clerks
Principals' offices—supplies
Principals' offices—other expenses
Other expense of supervision
Salaries of teachers
Textbooks
Other supplies used in instruction
Commencement exercises and exhibits
Other expense of instruction

Operation of School Plant
Wages of janitors and other employees
Fuel
Water
Light and power
Janitors' supplies
General care of grounds
Services other than personal
Other expense of operation

Maintenance of Plant
Upkeep of grounds (repairs)
Repair of buildings

Repair and replacement of heating, lighting and plumbing equipment
Repair and replacement of apparatus used in instruction
Repair and replacement of furniture
Repair and replacement of other equipment
Other expense of maintenance

Fixed Charges
Pensions
Rents
Insurance
Taxes
Contributions and contingencies

Debt Service
Payment of bonds—direct
Payment of bonds—sinking fund
Redemption of short term loans
Payment of interest—on bonds
Payment of interest—on short term loans
Refunds of taxes and tuition

Capital Outlay
Land
New buildings
Improvement of new grounds
Alteration of old buildings (not repairs)
Equipment of new buildings—heating, lighting, plumbing and electricity
Equipment of new buildings—furniture
Equipment of new buildings—instructional apparatus
Equipment of new buildings—other equipment
Equipment of old buildings—heating, lighting, plumbing and electricity
Equipment of old buildings—furniture
Equipment of old buildings—instructional apparatus
Equipment of old buildings—other equipment
Other capital outlay

Auxiliary Agencies
Libraries—salaries
Libraries—books, repairs and replacements
Libraries—other expense
Health service—medical inspection
Health service—nurse service
Health service—dental service
Health service—other expense
Transportation of pupils
Care of children in institutions
Provision of lunches
Community lectures and social centers
Recreation
Other expenses
Payments to private schools and those of other civil divisions

GRAND TOTAL

This classification is certainly complete, intelligent, and scientific. But what is of more importance is, that, with the exception of supplies and textbooks, there is nothing here that cannot be charged at once to a specific account on the foregoing chart, as soon as the expense is incurred, and the bill, payroll, or charge voucher, received and checked. To charge expense when incurred, is, of course, essential. There is no room in school accounting, any more than in any other business, for what is called, the "cash-book" system of accounting, by which expense is recorded only when payment is made. If we are agreed on this, then the rest is easy.

Modern accountancy has developed time-saving methods to an extent that would make old-time bookkeepers turn in their graves, because today, we double up records which at one time it was considered imperative to keep separate. One of these developments is the Cash-Journal.

CASH-BOOK JOURNAL & INVOICE & PAYROLL REGISTER

MONTH OF June

1925

Day of Month	No.	Particulars	Sch. Code No.	Check or Memo No.	Led. Fol.	CASH ACCOUNT		ACCOUNTS REC.		SOURCES OF REVENUE							
						DEBITS	CREDITS	DEBITS	CREDITS	STATE		FEDERAL		COUNTY		LOCAL TAXES	
										CR	DR	CR	DR	CR	DR	CR	DR
1	92	Payroll Instruction															
2	93	Admission															
3	94	Operating & Maint.															
4	95	Payroll Warrants (or checks)					2784.50										
5		Purchases of Supplies															
6		Accrued Income															
7		Tax payments, Appropr. paid				14000.00											
8		Expense Accts															
9		Requisitions on Stores															
10																	

EXHIBIT "A" (LEFT SIDE).

which, in its initial stages, recorded not only payments and receipts of cash, but the ledger accounts to be credited when cash was debited, and the accounts to be debited, when cash was credited. Now, we have further extended the purpose of this bookkeeping record, and are using it as a record of transactions that have nothing to do with the *payment or receipt of cash*, but with *purchases, and income accrued*. In other words, the three chief books of original entry have been combined, and the information shown in the three forms of record have been incorporated in the one. The effect of this is that instead of posting from three or more records, to the general ledger accounts, it is necessary to post from *one* record, only. But the adoption of this form and principle to school accounting is quite new. I doubt whether there are a dozen school offices in the country in which it is being used in all its completeness. Let me make it quite clear, however, that by means of this simplified system and practice, *all* cash receipts and disbursements, *all* liabilities incurred, *all* revenue accrued prior to payment, and *all* transfers of values from one account to another, are recorded on *one* form, and the operation is so simple that I have yet to hear of any bookkeeper or accountant returning to the older methods.

The lay-out of this Cash-Journal and Invoice and Payroll Register form, is shown as Exhibit "A." This has been specially drawn up by me, for school accounting, and is in complete harmony with the classifications called for by federal and state authorities. Let us study this critically and in detail, for I am confident that it will solve the problems of some superintendents who are dissatisfied with their present form of bookkeeping.

As a Cash-Book, it meets every requirement. The *Cash Account* columns take care of all receipts and disbursements. So far as is possible, all revenue should be accrued prior to collection; this will set up a *charge to Accounts Receivable*, and *credits* to various revenue accounts. By *Accounts Receivable*, it must be understood that we include all taxes, appropriations, receivable funds, and all other forms of revenue. While only one column is appropriated for all monies receivable, the auxiliary "A/C No." column makes it possible to identify each entry with the revenue account affected, by using the account number of the particular revenue account concerned. Revenue that cannot be accrued, will be credited to the source from which obtained, *when it is collected*, or paid. Then with respect to disbursements; by *accruing* these, they become *credits to Accounts Payable* (and this account includes payrolls, as well as all forms of bills, vouchers, etc.) and *charges* to administrative, operating, or capital outlay expense. Now then, when money is received, the entries are as follows: *Cash Account* is *charged*, and *Accounts Receivable* is *credited* (if revenue has been accrued), or one of the revenue accounts is credited (if revenue cannot be accrued prior to

collection). Disbursements are *credits to Cash Account* and *charges to Accounts Payable*.

All liabilities must be accrued, except small petty cash items, and these should be made from a *petty cash fund*. Only payments to the *fund* must appear in the Cash-Journal. All payments from the fund for petty cash expenditures, should be recorded in a subsidiary petty cash book. So much then for the Cash-Book feature of the Cash-Journal form.

Since it is important that all bills, invoices, payrolls, and other forms of charges against the school administration, should be recorded as soon as they have been properly checked and the receipt of the material, or service, certified to, it is a good plan to number them as soon as they are entered. This facilitates reference should it be necessary to examine them again before they are finally filed under the name of the vendor, or by some other classification found convenient. Until they are finally disposed of, they should be kept in a file in numerical order, that is, in the order of their voucher numbers. In the illustrative entries on the specimen form, I have shown only the character of the entry, instead of the individual bills, or items; for example, purchases of supplies, item 5; in actual operation the *individual bills* or statements would be entered and distributed. And the same with the expense accounts, item No. 8; these would be itemized according to individual accounts, invoices, or statements. Then payrolls should be entered by *individual schools*, and this brings us to another feature on the form; the "School Code Number." Since modern accounting in its relation to school administration, demands that the *cost of individual schools* be accurately recorded, why not begin this with the initial entries, at the time the bills and other expense items are recorded in the Cash-Journal and Invoice and Payroll register? If school board officers only realized how much easier it is to take care of these things at the start, and at the same time as they make initial records, a great deal of confusion and wasted time and effort would be saved. In the column mentioned, should be entered the letter, number, or the combination of both, used to identify individual schools; and when the time comes at the end of the month to post up the individual school accounts, it is necessary only to extract the items shown against each school code number, required. Nothing could be simpler and nothing tends to greater accuracy. Note particularly, that in posting to the individual school accounts, we are not interested in payments, but only in expenditures incurred. Should there be any special revenue accruing to an individual school, this would be shown in the same manner; that is, the code number of the school benefitting, would be entered in the column provided, and on the same line as the entry concerned. In the column captioned "Ledger folio" is posted the folio in the school ledger, to which the item is posted. This information is

shown *after* the posting has been made, not before.

You have doubtless already noted that the columnar heading are the same as were shown in the classification used by the N. E. A. It will now be apparent that at the end of the month we have, automatically, *totals* to post to each of these classified accounts. This gives us without any further trouble, the operating cost of each division of school activities, and additional expenditure on capital outlay. While this is what is required by the educational authorities, what is more important, is that it furnishes us with the essential information necessary to intelligent and efficient administration in school affairs.

But expenditure by function, only, good and valuable as this is, is not quite all that is necessary, and a further classification of expenditure, by means of additional columns, would result in a sheet so wide as to be impracticable. We are therefore compelled to adopt another method of showing a further sub-division of expense, and this must be by a character and object. But this presents no problem to modern accountancy. By the use of a series of *account numbers* for each separate functional group, we may identify every item in that group with a sub-division of expense by character. For example "151" might be used to designate wages of janitors, engineers, and firemen. "152" might be used for janitor's supplies. "131," salaries of principals; "141," salaries of teachers; and so on. A very simple but thoroughly effective system may be worked out by anyone, when once the principle is grasped.

There are other valuable features about this form to which attention may be called. For example: the school superintendent should know at all times, the amount of unpaid bills, etc. This he will get from the *Accounts Payable* columns; the difference between the *charges* and the *credits* in this column, represents the amount of unpaid bills, for that month. Of course, it must be understood that the *totals* of these columns are posted to ledger accounts corresponding exactly with the account titles at the head of the columns in the Cash-Journal; this is done each month, so that in order to arrive at the exact amount of outstanding accounts payable, *to date*, it would be necessary to refer to the *Accounts Payable* account in the general ledger. The outstanding, or unpaid revenue, taxes, etc., is obtained in the same manner, using, of course, the *accounts Receivable* column, and the *Accounts Receivable* account in the ledger.

Whether the school superintendent handles actual funds, or not, he will still require to know the available balance of cash standing to his credit. This he can get from the *Cash Account* in the general ledger, which is, the accumulated totals of the *Cash Account* columns in the Cash-Journal, the balance of which represents either a cash balance, or an overdraft, according to which side the balance appears on.

ACCOUNTS PAYABLE		D I S T R I B U T I O N of E X P E N D I T U R E S												Line
DEBITS	CREDITS	General Control	INSTRUCTIONAL SERVICE		Operation of School Plant	MAINTENANCE of PLANT		Fixed Charges	Debt Service	Auxiliary Agencies	CAPITAL OUTLAY			
		DR	Supervision	Instruction	DR	Grounds	Buildings	DR	DR	DR	Sites Buildings Equipment	General Stores & Text Books		
		A/C 100-129	A/C 130-139	A/C 140-149	A/C 150-159	A/C 160-169	A/C 170-179	A/C 180-189	A/C 190-199	A/C 200-229	A/C	A/C 300-319	A/C 320-349	
1	1932 00		400 00	1532 00										1
2	550 00	550 00												2
3	302 50				200 00		102 50							3
4	2784 50													4
5	900 00												950 00	5
6														6
7														7
8	3100 50		100 00	1800 50	90 00	10 00	600 00			1000 00				8
9				200 00									200 00	9

EXHIBIT "A" (RIGHT SIDE).

All payments must be by check, or warrant, and all cash received must be deposited. This is essential to good accounting, and the Cash Account will be synonymous with the Bank account, only if this is strictly practised.

But not only does this form of record combine the Cash-book and the Invoice and Pay-roll register, it includes also, the Journal, which is the bookkeeping record of all *transfers of values* from one account to another. For example: we have a General Stores account, to which is charged all school supplies, textbooks, and other material that are issued only on properly authorized requisitions. From time to time, the value of the stores account is increased (by more purchases) or decreased (by issues on requisitions). These transactions are journalized, by which we mean, that an entry is made, *crediting the stores, and charging some operating account*. Item 9, in the specimen form, will indicate how this is done. All credits to any account should be made in *red ink*, as these credit amounts must be totalled separately and posted to the credit side of the corresponding account in the general ledger account, and in the school ledger.

Objection to a wide form with many columns is sometimes made on account of the danger of making entries on the wrong lines, especially when it is necessary to carry these right across the form. This difficulty may be greatly minimized by numbering each line, and repeating the numbers at intervals across the sheet. The best form of Cash-Journal sheet is that which is

bound in the center, and two separate sheets make one complete form. In Exhibit "A" will be seen the two sheets which, together, placed side by side, as they would appear in the binder, make the complete record. By taking any one of the illustrative items, the reader can follow it through the distribution columns simply by noting the number of the *line*, on which the item is entered in the "Particulars" column.

What else is required in the way of bookkeeping records, in addition to the Cash-Journal? Only two ledgers: the General ledger, in which are accumulated the revenues and expenditures for the school district, the city, or the county; and a School ledger, in which these same expenditures are split up according to individual schools. After seeing the conglomeration of miscellaneous books and records that clutter up some school board offices, the sum total of which yet fails to give as much information concerning school expenditure, as the form of Cash-Journal which we have had under consideration, I am convinced that there must be many schoolmen who will welcome this simple but particularly satisfactory and scientific form of accounting record. I do not claim for one minute that it will meet the needs of every school board or committee, regardless of size or local conditions, but I do claim that it will entirely meet the requirements of a great many offices that are at present over-burdened with useless detail, yet handicapped by a lack of vital accounting and cost knowledge, which such a record as we have presented here, will furnish.

One Killed Here!

Peter Ronalson

The police department of a large city in the Middle West is trying to cut down the number of street accidents by indicating the location of every motor fatality with a metallic marker bearing the terse legend, "One Killed Here." The idea seems to be a successful one. He is a very reckless motorist who does not stop, look and listen at the sight of the grim reminder.

A motive, similar to that which led to the erection of these memorials, has inspired the writing of this article. It is going to be a story of professional fatalities, superintendents' resignations. It is going to tell why some superintendents have lost their jobs, not in a spirit of morbid gloating over their misfortunes, but that the young superintendent just setting out on his professional career may take heed at the corners where others have skidded and smashed up their professional careers.

The relationship of the superintendent to his school board is one point of danger where many a good man has met disaster. It is, of course, essential that the superintendent's relations with the school board be harmonious. He can accomplish little unless he has their confidence and support. That confidence and support can be lost in ways innumerable.

Looseness is Fatal

I know of one superintendent who lost out largely because of the looseness of his preparation for board meetings. He gave little thought to bills to be presented for allowance, until about ten minutes before the time set for the meeting to be called. It was his misfortune to have two board members who had an insatiable curiosity with regard to bills. They seemed to feel it their duty to ask the why and wherefore of this item and that. With a very small expenditure of time and effort, he could have familiarized himself with all bills before the meeting and could have anticipated possible questions and objections. In that case he could have answered the questions these board members raised to their satisfaction and the enhancement of his own prestige. As it was, for lack

of such preparation, he was often forced to hem and haw, and cut a rather sorry figure.

Likewise, he often presented new measures and schemes to his board before he had them clearly worked out in his own mind. He sometimes asked for things before he really knew what he wanted and why he wanted it. Then when doubt or opposition was raised by some member of the board, he was unable to defend his recommendations with the accurate detail necessary to carry conviction.

His resignation was requested on the ground that he was a visionary dreamer and a loose administrator.

Another owed his resignation to his lack of patience with his school board. As soon as he himself was convinced on a desirable project, he felt that the board ought to rubber-stamp its approval without question. Since his board was not of the rubber-stamp type, he was frequently disappointed.

He was brilliant and progressive, and most of his measures should have been carried out. He undoubtedly would have succeeded, had he sat down quietly with the members of his board and talked matters over until they saw his idea in the same light he did. Instead of doing that, he hurled his recommendation broadside at the board in terms which were not entirely clear to them. Then when the board, not understanding, vetoed the proposition, he sulked, bemoaned his misfortune in having a reactionary school board to deal with, and in general gave the impression that he considered himself to be the only person in the community deeply interested in educational progress.

It does not take any board long to tire of this sort of thing, and he soon found it advisable to seek a new environment.

Undue Intimacy With Individual Members

Some superintendents have had their troubles originate through their being overly intimate with some one board member or with a certain group of board members. It is natural, of course, for a superintendent to find some of his

board members more congenial than others. It is stranger, in fact, if he does not find some of his firmest friends among them. Nevertheless, regardless of social intimacies with some few members of the board, he must be scrupulously careful to treat them all alike so far as his professional relations are concerned. I have known of superintendents to caucus with a certain faction of their school boards before every important meeting. To do so seems to me rather questionable from the standpoint of professional ethics. Most of these men have also found it unwise from a selfish point of view. The faction on which they depended for support one year was off the board the next. One superintendent made it a point to discuss his policies very fully with those board members whom he considered most influential. Those whom he ignored soon learned about the status of things—they always do—and naturally were resentful. He soon discovered to his sorrow that from the standpoint of trouble-making at least, they were much more influential than he had suspected.

Carelessness in social and business relations has taken its share of victims. The average school board contains among its members some of the best business men of the community. It is hard for such men to maintain their respect for school superintendents whose bank accounts are overdrawn or whose bills remain unpaid for any length of time. Last December I heard of a superintendent eight of whose checks were dishonored by his bank in one day. It was Christmas time, and public gossip laid a good share of the blame to the extravagance of his wife. Even so, one did not have to be a prophet or the son of a prophet to foretell a change of superintendents in that town this spring—and it occurred.

Handling School Funds

In the small city where the superintendent handles the funds of school organizations such as literary societies and athletic associations, it is very necessary that methods dictated by ordinary commercial caution be employed in the care of such funds. In the case of athletics, particularly, students and school patrons are likely to exaggerate the amount of gate receipts. If a large crowd is present at a game, they usually think it is larger than it really is. Likewise outsiders usually fail to realize how large the expense of maintaining school athletics really is. As a result, they are prone to be disappointed at the balance in the athletic treasury. If the superintendent cannot at all times show clearly what money has been taken in and where it has gone, it is very easy for rumors to start that some of the athletic receipts have found their way to his own pocket.

Anyone who handles other people's money must keep his trust funds apart from his own money. He must also keep a clear, verified record of all expenditures. All receipts should be deposited in a bank. Vouchers should be in evidence for all payments. Entries of receipts from athletic contests and other school entertainments should be verified and initialed by some one other than the superintendent. If such precautions had been universally observed, gossips in some communities would have been robbed of considerable pleasure, and superintendents of honest intentions would have been relieved of a great deal of embarrassment.

Failure to live in Rome as the Romans do has taken its toll of schoolmaster victims. Every community has its customs and traditions. To a person bred in another environment, they often seem narrow and foolish. Many of us can see no harm in dancing at school functions provided that it is properly supervised. But trying to introduce public school dancing in a community whose public opinion is opposed to dancing is one sure way of inviting a request to

(Concluded on Page 153)

Conditions of Admission and Membership in Public Secondary Schools

W. W. Patty, Professor of School Administration, University of Indiana

A study of the laws of the various states reveals, first, that forty states include specific provisions in either their constitutions or their statutes for free school privileges for all individuals of legal school age residing within the district.¹ These statutes have been sustained by the courts on the grounds that free public schools include the public secondary schools.² The test of residence for school privileges is not the same as the test for taxation or for the exercise of the right of suffrage, and is more liberally construed. Therefore, when two boys living in the Mt. Hope School District of Iowa were emancipated by their father living in Canada, the boys were declared to be residents of Mt. Hope District for school purposes and legally entitled to full public secondary school privileges.³

Not only is the secondary education program being extended both horizontally and vertically as to subject matter, but its benefits are also being extended to include all of the adolescent and adult population of many of the states. The opportunities of the present program are open to all, irrespective of race, color, age, or, in certain courses, to previous school achievement.

We find that sixteen states require that separate schools be maintained for colored children.⁴ Eight of these states specifically prescribe that equal facilities for educational work of equal standard be offered.⁵ California and Mississippi authorize the establishment of separate schools for Indian, Mongolian, Japanese, or Chinese children. Ten states stipulate in their statutes that there shall be no discrimination for admission to public secondary schools on account of race or color.⁶

A significant provision made by the statutes of 32 states is that which furnishes educational opportunities for adults in evening schools.⁷ Perhaps more significant are the statutory provisions of seven states that adults may be admitted to day schools.⁸ Probably, as a result of the situation created by the inclusion of a constantly increasing proportion of all the youths of the United States in the public schools, we find that eight states make statutory provisions authorizing the admission into the junior high school grades of adolescent girls and boys whose educational welfare will be promoted thereby, even though these youths have not completed the standard amount of school work in the first six grades.⁹

All of the 48 states, in compliance with the Federal Smith-Hughes Act, set up admission requirements to secondary school vocational classes in terms of age¹⁰ and vocational aim.¹¹ No requirement relative to completion of elementary grades is mentioned in this act which has been

accepted by all the states. California has also provided by statute that individuals showing evidence of fitness, may be admitted to high school without having completed the elementary grades, and any such over 18 years old may enter junior college.

Of the foregoing provisions those relating to the educational rights of non-white children have been sources of much litigation. The courts have held that, when the statutes or constitution of a state authorize or prescribe the establishment and maintenance of separate schools of substantial equality for white and colored children, no right under the provisions of the Fourteenth Amendment to the United States Constitution is violated.¹² A complete separation between the white and colored races with impartial facilities for both races is a legitimate plan for a system of free public schools.¹³ The term "colored" means not only negroes, but also persons who are of mixed blood. A mixture of one-sixteenth negro blood is sufficient to cause the individual with such proportion to be classed as "colored" for purposes of school attendance.¹⁴

The power of a board of education to establish separate public schools for colored children rests entirely upon state constitutional and statutory provisions. Boards of education do not have such authority unless it is expressly given by statute.¹⁵ This fact is well illustrated by two leading California Supreme Court cases. The case of *Ward vs. Flood*¹⁶ was decided at a time when the statutes of California authorized the establishment of separate public schools for colored children and their exclusion from public schools for white children. Subsequent to the act of April 7, 1880, repealing sections 1669, 1670 and 1671, the statutes no longer authorized such segregation of colored children. Consequently, the Supreme Court of California, in 1890, held that it was no longer within the power of boards of education or school trustees to establish public schools exclusively for children of African descent.¹⁷ In those states in which the constitutions or statutes still require the establishment and maintenance of separate public schools for colored children¹⁸ it is distinctly emphasized by the courts that there shall be no discrimination in the quality of educational opportunities afforded, and that, if such discrimination is made, it violates state constitutional provisions for a system of common or free public schools, as well as the "equal protection" clause of the United States Constitution.¹⁹

Court interpretations and decisions relative to statutes authorizing establishment of sepa-

rate public schools for Chinese, Japanese, Mongolian, and Indian children parallel and are in harmony with those relative to separate schools for children of African descent. Thus, the exclusion of a Chinese student from a public school, in absence of proper statutory authority, was held illegal in San Francisco, California, in 1885, notwithstanding a resolution of the board of education purporting to command the teachers to do so.²⁰ In 1902, however, after proper legislation had been enacted, the statute authorizing the establishment and maintenance of separate schools for children, Chinese, Indian, Japanese, or Mongolian parentage, and requiring exclusion of such children from other schools if separate schools for them are established, was held by the Federal Court of the United States to be valid. Such an action is not forbidden by the Fourteenth Amendment to the Constitution of the United States since it does not deprive such students of the equal protection of the law, if the educational facilities provided are equal.²¹ A very recent California Supreme Court decision held that, where a separate government Indian school maintained in a public school district did not offer equal advantages to those of the public schools of the district, the exclusion from the public schools by the school trustees of an Indian girl whose parents were citizens of the United States and residents of the district, was not legal. Such an act is a violation of the provision of the Fourteenth Amendment to the United States Constitution providing equal protection of the laws.²²

In addition to the positive provision in constitutions and statutes of forty states for free public school privileges for all youths of legal school age,²³ twenty states specifically prohibit the charging of tuition to resident students attending the public secondary schools of the district.²⁴ Such a statute prohibiting the charging of tuition was upheld by the Supreme Court of North Carolina in 1917.²⁵ Where a high school is not within the class of high schools included in the statute, the trustees may charge tuition to students residing within the county but not in the high school district.²⁶

Arkansas and Idaho require by statute that youths must have completed the approved elementary-school course of study in order to enter the regular high school classes. In nine states the public secondary school boards are given authority by the statutes to give such examinations or other prescription as they deem wise, as one of the conditions of admission to public secondary schools.²⁷ Therefore, in South Dakota, where the statutes give the boards of education of independent school districts the power of exercising control over the public schools of the district, the Supreme Court held that it was a reasonable rule for the board to

¹See key number 1286, and Summary Chart.

²Board of Education of city of Lawrence vs. Dick et al (1904) 70 Kan. 427, 78 Pac. 812, 814; Special School District No. 65, Logan County et al vs. Bangs et al (1920) 144 Ark. 34, 221 S. W. 1060, 1061; People ex rel Hill et al v. Williams, Dist. Supt. of Schools, et al (1920) 179 N. Y. 8, 773, 775 (Supreme Court, Appellate Division) 190 A. D. 534.

³Mt. Hope School District vs. Hendrickson, County Auditor, et al (1924) 197 N. W. 47, 48 (Iowa Supreme Court).

⁴See key number 1304, Summary Chart.

⁵See key number 1306, Summary Chart.

⁶See key number 1308, Summary Chart.

⁷See key number 1289, Summary Chart.

⁸See key number 1290, Summary Chart.

⁹See key number 1294, Summary Chart.

¹⁰"Fourteen years or over" Bulletin No. 1 Federal Board for Vocational Education, pp. 53, 54.

¹¹"Preparing to enter upon the work of the farm or of the farm home—preparing for a trade or industrial pursuit." Bulletin No. 1, Federal Board for Vocational Education.

¹²The State of Ohio, ex rel William Garnes vs. John W. McConn. and others (1871) 21 Ohio 198, 211; Mary Frances Ward, by A. J. Ward, her guardian ad litem, vs. Noah F. Flood, Principal, in the City and County of San Francisco, (1874) 48 Cal. 36, 41.

¹³Chicago, Rock Island & Pacific Ry Co., vs. Lane (1918) 69 Okla. 145, 170, Pac. 502, 503.

¹⁴Mullins et al vs. Belcher (1912) 142 Ky. 673, 134 S. W. 1151, Am. Cas. 1912 D 456; Moreau et al School Trustees vs. Grandich et al (1917) 114 Miss. 650, 75 So. 434, 435.

¹⁵Smith vs. The Directors of the Ind. Sch. District of Keokuk (1875) 40 Ia. 518; W. E. Woolridge et al, Plaintiffs vs. The Board of Education of the City of Galena, and R. E. Long as City Superintendent of Defendants, (1916) 98 Kan. 397, 403, 157 P. 1184; Thurman-Watts vs. Board of Education of City of Coffeyville et al (1924) 115 Kan. 328, 222 Pac. 123, 125.

¹⁶Mary Frances Ward vs. Noah F. Flood (1874) 48 Cal. 36, 41.

¹⁷Arthur Wysinger v. Crookshank (1890) 82 Cal. 588.

¹⁸See key number 1304, Summary Chart.

¹⁹Prowse et al vs. Board of Education for Christian County (1909) 134 Ky. 365, 120 S. W. 397, 399; Trustees of Graded Free Colored schools of city of Mayfield vs. Trustees of graded white common schools of city of Mayfield (1918) 180 Ky. 574, 203 S. W. 520, 523; Jones vs. Bd. of Ed. of City of Muskogee et al (1923) 90 Okla. 233, 217 Pac. 400, 402.

²⁰Mamie Tape vs. Hurley (1885) 66 Cal. 473.

²¹Wong Him vs. Callahan et al (1902) 119 Fed. 351, 382 (California).

²²Alice Piper by Pike Piper, her Guardian ad litem, Pike Piper and Annie Piper, Petitioners vs. Big Pine School Dist. of Inyo County, St. of California et al, Defendants (1924) 67 Cal. Decis. 486, 489, 490.

²³See key number 1286, Summary Chart.

²⁴See key number 1291, Summary Chart.

²⁵Bd. of Ed. vs. Bd. of Com'rs of Granville County (1917) 174 N. C. 469, 93 S. E. 1001, 1003.

²⁶Albert W. Blake, a Minor by Rolla A. Blake, His next Friend, Plaintiff, vs. The Board of Education of the City of Parsons, Defendant (1922) 112 Kan. 266, 268, 210 P. 351.

²⁷See key number 1293, Summary Chart.

²⁸Streich vs. Bd. of Ed. of Independent School District of City of Aberdeen et al (1914) 34 S. D. 160, 147 N. W. 779, 783, L. R. A. 1915 A 632, Ann. Cas. 1917 A 760.

require a student to submit to and pass a physical examination before being admitted to classes in physical education.²⁸ Even in a state where the statutes prescribe that one who completes the elementary school course of study approved by the State Board of Education and who passes the state examinations must be granted entrance into any high school of the state,²⁹ the Supreme Court has held that high school boards may require graduates of private or parochial elementary schools to pass an entrance examination before being admitted to the high school.³⁰

The statutes of fifteen states authorize high school boards to charge tuition for educating non-resident students.³¹ The state Supreme Courts have sustained such statutes.³² In Iowa the high school board may charge the non-resident student a tuition in excess of that which his home district must pay to the high school district where he attends.³³ Ten states require high school authorities to admit non-resident students who live in non-high-school districts.³⁴ These statutes have been sustained on the ground that such legislation is in harmony with constitutional provisions for uniform free public school systems.³⁵ The statutory provision which usually accompanies the preceding provision mentioned, namely, that the non-high-school district in which such student resides must pay his tuition to the high school district in which he is provided with educational advantages, cannot be discussed here.

The power to determine the rules and by-laws necessary to the proper regulation and conduct of public secondary schools has been granted to secondary school boards under the general provisions for providing the school system.³⁶ One of the problems of management of the student body that has attracted much attention from school officials during recent years has been that of secret organization of students. Seventeen states have seen fit to enact statutes relative to secret fraternities and sororities. Seven states prohibit them by statute unless sanctioned by the secondary school board.³⁷ Ten states prohibit any student in a public secondary school from belonging to school secret fraternities or sororities under any circumstances.³⁸ Four states have provided for fines for violation of the anti-fraternity laws.³⁹

The courts have supported local boards of education in measures taken to enforce the laws against public school secret societies. It has been held to be a reasonable exercise of the powers and discretion of the public secondary school board to deprive offending students of the privileges of belonging to debating clubs, athletic teams, musical clubs, and kindred organizations.⁴⁰ It has been held further that students who violate rules of public secondary school boards prohibiting membership in secret school societies of any kind may be legally expelled from the school. Such rules are held to be within the scope of the public school board's authority to adopt and enforce all necessary

regulations for the conduct of the schools.⁴¹ The constitutionality of a statute prohibiting membership in public school secret fraternities and sororities has been sustained on the grounds that it does not abridge the privileges and immunities of citizens of the United States. In the words of Justice Kerrigan:

"The system of public schools of this state is a state institution, and is subject to the exclusive control of the constitutional authorities of the state. It is, of course, true that the right of attending a public school is capable of enforcement at law, but it is not such a right as is guaranteed by the above-quoted provision of the federal constitution. The privilege of receiving an education at the expense of the state is not one belonging to those upon whom it is conferred as citizens of the United States, and, therefore, so far as the 'privileges and immunities' clause of the fourteenth amendment is concerned, might be granted or refused to any individual or class at the pleasure of the state."⁴²

The following Key Code and Summary Chart indicate in detail the principal legal provisions relative to admission and membership in public secondary schools in the various states.

KEY CODE

Conditions of Admission and Membership of Students in Secondary Schools provided by Constitutions and Statutes Provision

- Key Number
- 1286 The constitutions and statutes of certain states provide for free school privileges for all individuals of legal school age (40).*
- Provision
- 1287 The statutes of certain states permit secondary schools to charge a tuition or incidental fee to resident students.
- 1288 The statutes of certain states stipulate that no student of compulsory school age may be excluded because of inability to pay incidental fees or tuition (2).*
- 1289 The statutes of certain states provide for the admission of adults over twenty-one years of age to evening schools (32).*
- 1290 The statutes of certain states provide for

*The figures in parenthesis indicate the number of states having this provision.
 *Edward Smith by Geo. W. Smith, Appellees vs. Bd. of Ed. of Oak Park and River Forest Township High School Appellant (1913) 182 Ill. App. 342, 346, 347. Also see key number 1312, Summary Chart.
 *Doris Bradford vs. Bd. of Ed. of San Francisco et al (1912) 18 Cal. App. Rep. 19, 21, 22.

STATE	YEAR	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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- 1303 The statutes of certain states authorize the admission of individuals over twenty-one years of age as special students without their having graduated from elementary school (1).*
- 1304 The statutes or constitutions of certain states require special schools to be established for white and colored students, and no child may be permitted to attend a school with the other race (16).*
- 1305 The statutes of certain states provide that separate schools for colored children shall be established if voted by a majority of electors of the district (1).*
- 1306 The statutes or constitution of certain states provide that separate schools maintained for different races must be of equal standards of accommodations and facilities (8).*
- 1307 The statutes of certain states authorize the establishment of separate schools for children of Japanese, Chinese, Mongolian or Indian races; and require attendance at these schools by said children when established (2).*
- 1308 The constitutions or statutes of certain states stipulate that no discrimination shall be made as to admission to public secondary schools on account of race or color (10).*
- 1309 The statutes of certain states authorize the establishment of separate schools for colored children (3).*
- 1310 The statutes of certain states prohibit the existence of secret fraternities in any public secondary school unless sanctioned by the board of directors of the school district or other specified school authorities (7).*
- 1311 The statutes of certain states require that no person enrolled in a public school belong to a fraternity, sorority, or secret society under any circumstances (10).*
- 1312 The statutes of certain states authorize the school directors to suspend or expel any public school student who belongs to a secret school organization (11).*
- 1313 The statutes of certain states impose a fine for violation of the public school anti-secret society laws (6).*
- 1314 The statutes of certain states define a public school secret society as any secret fraternity, sorority, or society formed wholly or in part for the benefit of any public school students (7).*

Synopsis

In conclusion, the data presented in this article emphasize certain outstanding points. Free opportunities for the benefits derived from admission and membership in public secondary schools are provided by almost all states. The present state laws extend these opportunities to the population, irrespective of age, color, or previous school education, in many states. The right to a high school education belongs to a youth living in a non-high-school district as well as to one who is a resident of a high school district.

In order to enjoy the privileges of high school membership, a youth must qualify by completing an approved public elementary school course, pass examinations prescribed by the local or state board of education, or identify himself as coming within the class of special students with a specific vocational aim, unless the statutes of his particular state authorize his admission as a special student on the ground that his welfare will be furthered thereby. As a member of a public secondary school, each student is subject to the statutory provisions of his state and to all reasonable rules and regula-

*The figures in parenthesis indicate the number of states having this provision.
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tions of the school board. If he violates any law or regulation, he may be deprived of special privileges, expelled, or, in some cases, fined.

One-third of the states provide separate public school systems for white and colored children. Two states authorize the maintenance of separate schools for Indian, Chinese, Japanese, and Mongolian children. These separate school systems must offer equal educational advantages. Failure to provide equivalent educational advantages violates state constitutional provisions for a uniform system of common or free public schools, as well as the fourteenth amendment clause of "equal protection" of the United States Constitution. If equal advantages are offered, however, separate schools established by the states are within the legal powers of the states, and the maintenance of such is not a violation of the Fourteenth Amendment to the United States Constitution.

The legal conditions of admission and membership in public secondary schools of the United States indicate that lawmakers and courts are fundamentally interested in making available to all the people the best educational advantages that the public secondary schools afford. The courts support uniformly the legislators and public secondary school boards in all reasonable use of their legislative powers providing legal regulations for the purpose of insuring these advantages to the people. The legislatures and the courts are harmoniously cooperating to eliminate racial and social jealousies from the public schools. The laws relating to admission and membership in public secondary schools seek to provide uniform, free and universal opportunities for enjoyment of the privileges and resultant benefits of the public secondary curricula of the United States.

The Consulting Mechanical Equipment Engineer: His Services and the Board of Education

I. — The Failure of the Present System

Carleton F. Tweed, C. E.,¹ Chicago, Ill.

For the benefit of those who are not acquainted with the work of the professional mechanical equipment engineer, it may be well to mention at the outset the services which this particular branch of the engineering profession renders. In the first place, the mechanical equipment engineer does not shovel coal or oil engines. This negative statement is suggested by the question of a school board member who once said to the writer, "What do we need an engineer for? We haven't got the building ready yet."

Everyone knows what services an architect renders. It is well known that the architect draws plans and writes the specifications for new school buildings. Since the building of schoolhouses became too complicated for the mason and the contractor to handle, the architect has been a necessity and most people have been educated into believing that an architect is capable of rendering every possible service required for planning and constructing successful schoolhouses. That this is not always the case, most school board members well understand, particularly those who have been reminded of the shortcomings of architects by such facts as the failure of a heating plant, or the insufficiency of the hot water supply, or the excessive coal bills in a particular building.

The school board who has had such troubles, has in all probability talked over the matter with the architect, the local heating contractor, the plumber or the electrician, according to the nature of the particular grief. It is ten to one

¹Chief engineer of the Arlington Engineering Co., Chicago.

that nothing ever came of the discussion, and the particular grief attached to a school building is still there and probably growing worse because a competent mechanical equipment engineer has not been consulted. What is needed in case of a major failure in mechanical equipment in a school building is the services of a consulting mechanical equipment engineer to whom such troubles are simple problems, like those in arithmetic. After a school board has been fortunate to have located a really competent mechanical equipment engineer there generally is no difficulty in having the failure corrected in the proper manner, without half tearing down the building and reconstructing it, or taking some other measures equally as serious and expensive.

The Services of the Consulting Mechanical Equipment Engineer

The business of the mechanical equipment engineer includes the planning and writing of specifications for the heating, ventilating, plumbing, electrical wiring, vacuum cleaning, and other similar equipment and apparatus in buildings. During the past ten years this specialty has been making great strides forward. The profession is today on a par with the architectural profession, and deserves equal consideration with architects by all persons and groups who have control of the finances for the construction of important building projects. This statement applies particularly to school buildings, because the mechanical equipment of a large or medium-sized school building usually totals from twenty to twenty-five per cent of the total cost of the building. Thus, in a million

dollar school building, the mechanical equipment costs from \$200,000 to \$250,000 and the importance of competent planning and supervision is readily apparent.

School board members who are responsible for the selection of architects for new school buildings, should remember that the mechanical equipment involves the expenditure of considerable money, and should carefully consider the architect's statements as to his ability to perform the planning and supervision of this part of the work.

The common practice of school boards is to accept the architect's statement of his ability to handle the mechanical equipment without question. In his sales talk, when he is out after a new contract, the architect usually emphasizes his good points and overlooks mention of the weak links in his own ability and organization. Usually he secures a schoolhouse contract without mention of the engineering work. But, if it happens that a particularly alert school board member happens to mention the matter of engineering, he is very prompt to assure the board that his engineering capabilities are of the finest; in fact, that is likely to become his strong talking point from this time forward.

The architect is undoubtedly able to calculate the size of a steel beam necessary to carry a given load, or to design a concrete structure. But, when the architect speaks of his engineering ability, he generally takes in the broad field covered by every known branch of architectural design and architectural engineering. He is not so specific about his particular ability to

design the mechanical equipment, which requires special training and experience, particularly as applied to school buildings. The average architect is a wonderful salesman, and as such, all glory to him. The pity is that the average consulting mechanical equipment engineer lacks similar selling abilities and the necessary professional background to impress upon school boards the value of his services.

The Weakest Link

The weakest link in the architect's organization is to be found in his ability and his methods of handling mechanical equipment work. There are large numbers of architects who do not realize their inability in this direction, and there are others who do not hesitate to take unfair advantage of their clients and still remain within the rules of the ethics of the Institute. The present difficulty is that architects seem to be unwilling to admit their inability to handle mechanical equipment, and to recognize the mechanical equipment engineer as a professional man, who has a legitimate place in the preliminary work of planning school buildings and in the actual supervision of construction.

The writer has in mind an architect who is, perhaps, not typical, but whose methods illustrate the extreme of the short services which some architects give. This man is a super-salesman, who always argues that he can produce a school building of a larger size for a given sum of money, than any of his competitors. To prove his statements, he produces sketches for a building, showing exactly what can be done with a given sum. Naturally, the unsuspecting school board members are very much impressed, and after a slight and invariably inadequate investigation award him the contract. This architect, who is very capable in many directions, then sets to work and prepares a good set of plans and specifications and submits them to the board for bids. When the day for receiving bids arrives, the architect appears rather like unto an old-fashioned "merry Andrew." He assures the members of the board that everything is shipshape, and should the cost of the job run a little high, he has in mind some things that can be changed or left out. The bids are read, and after the members of the board have recovered from their shock, the architect shrewdly advises a closed session and proceeds to enumerate what can be eliminated from the building.

During this elimination process, the heating system changes from a vacuum system to a one pipe gravity system; the smokeless furnace gives place to an old-fashioned boiler of straight grate type; the air washers are completely eliminated; the roof ventilators change from a swinging type to plain sheet metal hoods; the insulation is omitted from the top floor ceiling; smaller radiators are figured; the windows which were to be double glazed are changed to single glazed; the clock and telephone systems are eliminated or reduced to extreme simplicity; the vacuum cleaner is omitted; the lighting fixtures are made of the simplest type; the plumbing fixtures are no longer of the heavy duty type, but are of poor quality. And when the complete list of omissions has been prepared, the three lowest contractors are called in and are asked to revise their bids accordingly. Everyone buzzes around to cut the price a cent here and a cent there, until finally the building is only a shell as compared to its former quality. And then the contract is awarded to the lowest bidder on the revised specifications.

After the contracts are awarded and the construction is begun, this architect is continually in evidence, especially at the meetings of the board. At one time he brings up an item of

omission and requests the board to find ways of securing additional funds so that the material may be reinstated. At another time he suggests another replacement. If he succeeds, as he sometimes does because he is really a super-salesman, the building is completed in fairly good style, and the architect has added to his reputation. But, more often he fails, and then the building is just another example of a common-place schoolhouse which causes everyone in town to sing the "schoolhouse blues."

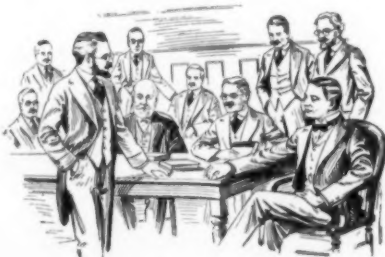
A Parallel in the Building Contract Field

For some years, and up to about ten years ago, it was customary to award all contracts for large buildings to general contractors. These would in turn sublet the various subcontracts, such as heating, ventilation, plumbing, wiring, etc., to minor contractors on the basis of the lowest price. Many school buildings were erected under this system.

The system was essentially faulty and resulted in frequent abuses practiced by the general contractor on the subcontractors. The general contractor received all the payments and naturally held the whip hand over those to whom he gave work. He was able to do considerable business on the subcontractors' funds, by withholding payments on one pretext or another. The general contractor frequently accumulated money to run his business, while the subcontractor was obliged to meet the bills for materials and labor almost immediately. The subcontractors were also saddled with various claims for delays and suffered penalties for non-compliance with plans and specifications. Many times they were dealt with unreasonably and it was often difficult to secure equitable settlement of claims arising between the general contractor and the subcontractors, due to the fact that the latter were not represented with the architect and the owners, except by the general contractor, who naturally opposed claims, etc., which were not in his own interest.

The evils of this situation which resulted in poor work and the use of substitutes caused various groups of mechanical equipment trades to oppose the general contractor's system. Through the combined activities of the organized master steam fitters, the master plumbers, the national electrical contractors, and other organizations, the system of general contracts has been done away with gradually, and at present contracts for mechanical equipment work are generally placed independent of the general contractor.

The American Institute of Architects has for ten years or more given its support to this change of practice as a desirable evolution in the building business. In fact, some years ago the Institute passed a resolution recommending to its members the direct award of mechanical equipment contracts. This resolution in part reads as follows: "This resolution is based on the conviction that direct letting of contracts, as compared with sub-letting through general contractors, affords the architect more certain selection of competent contractors and more efficient control of execution of work, and thereby insures a higher standard of work, and at the same time, serves more equitably the financial interest of both the owner and the contractor."



In spite of the fact that the American Institute of Architects has recognized the desirability of direct employment of contractors for mechanical equipment, it has not similarly recognized the necessity of the owner directly employing a mechanical equipment engineer to design and supervise the installation of mechanical equipment. The architects are not ready to apply to themselves the principle of advocating the direct employment and responsibility for mechanical equipment engineers which they have applied to the general contractors. We shall continue our analysis and see if we can learn why the change has not been made.

Position of the Equipment Engineer

The consulting mechanical equipment engineer is today exactly in the position of the mechanical equipment contractor ten years ago. The architect of the present day assumes exactly the same relation to the consulting mechanical equipment engineer that the general contractor did to his subcontractors.

A prominent architect once stated publicly that no man could be both a good architect and a good engineer. This is absolutely true, and it may be doubted whether it is possible to find in the United States any one man who is capable of successfully practicing both professions.

Just as a general contractor of old took advantage of the situation in which he found himself, and carried on his business in a way detrimental to the subcontractors' interests, all of which reflected back to the owner and to his harm, so the architect today takes advantage of the situation and of the esteem in which he is held, and works a direct injustice on the consulting mechanical equipment engineer and an indirect injustice on the owner which would not be permitted if understood. This attitude is injurious to the engineering profession and prevents the engineer from rendering the best possible service to the owner.

Under the present system of planning buildings, the architect makes a contract with the owner, school board or building committee, which includes the mechanical equipment and for which he is paid a commission of six per cent on the total cost of the building. While the fee of six per cent is insisted upon by the Institute, still architects may be found who will accept anything from two per cent upwards.

Importance of Fees

The problem of fees is important, and because it is, we may here emphasize and state a law: "Whenever any architect or any consulting mechanical equipment engineer receives a fee of less than six per cent, the building so erected will not be as good and economical a building as it would have been if all concerned had received the proper compensation." This law is true in connection with professional services rendered in connection with a new building, regardless of its kind or purpose, or whether such services are rendered by architects or by engineers. Apply it where you will, to the cheap architect, to the cheap engineer, to the permanently organized bureau of buildings, where all employees are receiving civil service salaries, to any and all who render professional services in the making of plans and specifications and in supervising construction of buildings—the statement is equally true. Just as soon as fees are cut below six per cent, just so soon will the owner fail to receive the best to be had in the way of plans and services. Every building job to be good requires a considerable amount of concentration and study, and relentless supervision by experienced superintendents who are thoroughly familiar with their trades. If any building project does not receive a full amount of study and supervision, it falls below a reasonable standard in quality.

How the Architect Handles the Engineering Service

No owner can get six per cent services from an architect, so far as the mechanical equipment contracts are concerned, for the reason that the architect wants a profit for handling this part of the work, and this profit collected by the architect is deducted from the legitimate fee to which the consulting mechanical equipment engineer is rightfully entitled. That the architect derives a profit from the six per cent fee which is paid on the mechanical equipment contracts may be shown by the various means employed by the architect in order to make the profit. After obtaining a contract which includes mechanical equipment work, the architect has five lines of procedure which he can follow for completing the engineering plans and specifications and handling the supervision of the mechanical equipment.

1. He may do the work himself.
2. He may employ an engineer on a salary basis.
3. He may invite various manufacturers of materials or their representatives to prepare the plans for him, *gratis*.
4. He may invite various mechanical equipment contractors to make the plans *gratis*, or he may draw a schematic plan and compel the contractors to make the complete working plans after they get the jobs.
5. He can sublet the work to a consulting mechanical engineer.

Why none of these methods are satisfactory may be understood from the following discussion:

Method No. 1 may be passed briefly. Although it is not difficult to find an architect who claims that he can do engineering work, it is very, very difficult to find one who is competent to produce a finished product of engineering skill, which would be accepted as good by competent authorities who might be called upon to pass judgment.

Method No. 2 generally brings out one of four types of engineers. The first of these is the jelly-fish, who does exactly what he is told by the architect, without regard for the consequences. The second type is the fair engineer, who is in a rut and lacks initiative to handle his work on a proper basis. The third type is a partly experienced engineer, who is in reality serving his apprenticeship. Such a man has not the proper experience, and will undoubtedly make mistakes which the architect, through his own lack of experience, cannot discover or correct. The fourth type is the brilliant engineer, who lacks business ability and who finds that he must work under the direction of some one else. Such a man will find himself continually chafing under the direction of the architect, and will find that many of his best ideas are ruthlessly discarded, because they do not exactly fit in with the architect's own ideas. His work is subordinated to that of the architect, and he has no choice in the matter.

Free Plans Prepared by Manufacturers

Method No. 3 cheats the owner and is one of the most serious professional offenses committed by architects. The practice is condemned as unethical by the American Institute of Architects, and yet, it is the writer's experience that fully seventy per cent of all architects employ this method, or method No. 4. To the credit of manufacturers, it must be stated here, that in recent years many have discontinued the practice and absolutely refuse to prepare plans for architects. There still are, however, many who continue the practice, partly because their materials are not so good as other makes and are only specified and installed by placing the architects under obligations.

It does not require much deep study to show

that the practice is wrong. In the first place, the manufacturer is generally forced to prepare the plans and specifications for no further compensation than what may be added to the cost of his materials and labor. Naturally, he seeks to turn out the work in the shortest possible time. This process eliminates the proper study of plans, with the result that the equipment is fitted into the building in a haphazard way and, from the owner's viewpoint, with disastrous results. Again, the manufacturer in order to insure the use of his apparatus is often forced to prepare plans for other equipment than that with which his engineering staff is familiar. For instance, a manufacturer of vacuum steam specialties may be obliged to design an entire ventilating apparatus in order to include his devices, which are only a small part of a whole system. Or, vice versa, the manufacturer of ventilating apparatus may be compelled to design a system of vacuum heating in order that his fans, heaters, etc., would be used. This policy of having the manufacturers make designs does not permit of unbiased choice of apparatus.

Another bad feature of this system is that it leads frequently to the separate preparations of heating and ventilating plans. One system often interferes with the other to such a serious extent that costly alterations are necessary in the general construction or in some of the mechanical features, in order that the equipment will fit the space allocated to it.

Method No. 4, by which the contractor makes the plans, is another means employed by architects for cheating the owners. It may be done in one of two ways. The first is to have the contractor draw the plans before the bids are called for. The second is to require the contractor to make the detail drawings from a partly completed plan, which only outlines the general scheme and is in no sense a working plan. This latter method does, however, provide sufficient information for the contractor to grasp an idea of what is wanted and to make the list of materials as best he is able. To protect himself, the contractor must then estimate a good sum to cover omissions of materials which are not specified, but which may perhaps be required.

On top of this, the contractor must add an engineering fee for the preparation of the working drawings. When this is done, the owner pays two fees for the mechanical equipment: The first is the six per cent to the architect, and the second is an additional two or three per cent which the contractor includes in his cost when compiling his bid. To be equipped to take care of this kind of practice, many large heating contractors have in their organization three or more engineering draftsmen. The school boards and other owners of new buildings pay the salaries of these men unknowingly.

When a school building is constructed in a city where the architect maintains his office, the benefit of this system may be obtained through competition, and it is not often necessary that the architect obligate himself to a particular contractor. However, where the work is done in the small town, the architect must often work together with the contractor and use his influence to assist the contractor in securing the work.

As an example as to how serious this system actually is in practice the experience of a boiler salesman may be mentioned, who quoted prices on six different sizes of boilers for various contractors who had prepared estimates for a heating plant to be installed in a school building. This structure had been designed by an architect who practiced the system of having the contractors make their own layouts. In no in-

stance had any contractor figured the same boiler size as his competitor.

The Fee System

Method No. 5 for disposing of the mechanical equipment work consists simply in the architect honestly and sincerely subletting the mechanical equipment work to one or more consulting mechanical equipment engineers. When more than one engineer is employed, the work is divided by placing the heating and ventilating work in the hands of one man, the plumbing in the hands of another, and the electrical work in the hands of still another. The best way is to award all four branches of equipment work to one consulting engineer, as in this way the possibility of interference of one part of the work with another is avoided. That this system is better by far than any of the four previously mentioned systems will not be questioned by anyone familiar with building construction work. The reason that it is not entirely satisfactory is that the fees paid by architects to engineers are never more than four per cent and are often as low as one and one-half per cent, so that good work cannot be done, and the owner cannot be insured of one hundred per cent value for the fees he is paying.

Although much good work is being done under this plan, especially in the preparation of plans and specifications, it is still a long way from perfection. Where the fees are small, many engineers appear to be sacrificing their reputations, the high standards of their profession, and the interests of the work as a whole to commercialism and to their own immediate interests. To state the situation in another way, there seems to be a tendency to strive for a large volume of business from numerous architects at a small fee, and the results do not do credit to the profession. The engineers seem to have a sort of department store viewpoint of their profession; and shameful to admit, many engineers are working with the full knowledge of the architects who employ them to put over method No. 4 of preparing nothing better than schematic plans and specifications which the contractor must elaborate into working drawings.

Five Objections to the Present Fee System

The consulting mechanical equipment engineer, who is well trained and experienced in all branches of his profession, and who is anxious to turn out work that will meet all the modern requirements and will be economical in first cost and in operation, has five objections to this plan of operation. These objections may be summarized as follows:

1. There is a lack of proper provision for superintendence during construction.
2. There is a lack of proper operating instructions for the correct care and maintenance of the equipment by the operating engineer, who is to have charge of the building after it is completed.
3. The consulting engineer has no opportunity to explain his ideas to the owner.
4. The inadequate compensation hinders the development of the profession, and therefore the advance of good design and planning of mechanical equipment.
5. The practice allows of business abuses by the architects, which reflect on the engineering profession and are very costly and harmful to the owner.

The first objection stated above arises from the fact that just as the architect is lacking in the necessary qualifications to assume the responsibility for the design of mechanical equipment, so the ordinary superintendent of construction employed by the architect is incompetent to supervise the installation of the mechanical equipment. It stands to reason,

that any man who has spent the necessary time to become an expert in general construction, has not also had the time to become an expert steam fitter, sheet metal worker, plumber and electrician. Just here is the weakest link in the whole system. There is no provision whatsoever for systematic mechanical supervision during the construction, and the mechanical equipment contractors may do practically as they please. Many are honest and carefully strive to do their best. Yet, there are others who are without principle and do everything in their power to complete a job at the least cost to themselves. When contractors choose to follow the latter course, they can, in the language of the street, get away with murder.

The second objection is based on a very natural desire of the mechanical equipment engineer to have the apparatus which he has designed and installed, produce the best results. The conscientious engineer invariably wants to be certain that the equipment which he has planned, and the ideas which he has incorporated in a plant, are thoroughly understood by the man who will have charge of them, so that the equipment may give the longest and most efficient possible service.

Failure to Meet Owner

Objection No. 3, namely the lack of opportunity on the part of the engineer to explain his ideas to the owner, is based on experience. Many times during the development of a building project, the engineer would have his ideas better appreciated if it were possible for him to communicate directly with the owner. Under the present system, the engineer naturally feels that because the architect is his employer, he must remain silent concerning many matters that should be explained to the owner. Knowing this, the architect does not want an arrangement whereby the engineer has an opportunity to become acquainted with the owner. When there is an opportunity for consultation, it is not unusual for the architect to say to the engineer, "Don't say anything about this or that. I will take care of it."

Objection No. 4, relating to the development of the engineering profession is of interest to all owners, particularly to school boards. With proper compensation which should be six per cent on the cost of all mechanical equipment contracts, the mechanical equipment engineers will be able to extend their organizations, employ thoroughly experienced mechanical superintendents, and in many similar ways increase the value of their services to the owners. In time these services can not help but result in improved installations of mechanical equipment and also educate the school boards to a better understanding and appreciation of the services and work rendered by conscientious mechanical equipment engineers.

School boards who are engaged in the erection of small buildings costing \$50,000 and upwards are particularly interested in the development of the profession of equipment engineers. These small buildings are usually inadequately designed, so far as the mechanical equipment is concerned. It is rare indeed that a mechanical equipment engineer is called upon to work on buildings of this size. Still, with the proper compensation, the mechanical equipment engineer can work out a system of office practice that will place his services within the reach of every school board engaged in the erection of small buildings. Where sufficient work of this kind is available, the mechanical equipment engineer will be glad to have it, because it will serve to stabilize his office force and give his superintendents continuous work.

Abuses Practiced at the Expense of Engineers

Some of the business abuses (objection No. 5) practiced by architects on consulting

mechanical equipment engineers are as follows:

1. The fees for work are collected and held out. In this connection the contract is of little help. If the engineer crowds the architect, he is likely to lose future business, and if he does not crowd the architect, he waits long months and wastes time in trying to politely collect what is due him.

2. Architects often make extensive and radical changes in their plans and expect the engineers to make changes in the engineering plans without additional compensation.

3. Architects sometimes substitute inferior equipment for the high grade equipment which the engineers have specified. The engineers must pass by this substitution, even though they know it will injure their reputation at a later date. Sometimes they are not even advised of such changes.

4. Architects sometimes fail to check the various openings provided for in the mechanical equipment plans with the architectural plans and blame the engineer when trouble develops during construction.

Additional business abuses in the relations between architects and engineers could be mentioned, but the four just enumerated are ample to indicate the defects in the present system.

The principal argument architects offer against any division of the work is that it serves the owners' interest better to have only one head to deal with, who is responsible for the full completion and coordination of the several branches of the work. This argument has been shown to be a small matter, however, in comparison with the opposing evils practiced by architects. By holding to this argument architects are, to use an old proverb, "Cutting off their noses to spite their faces." They have yet to visualize that independent contracts between the mechanical equipment engineer and the owner

is by far a better business arrangement for all concerned.

The history of professional service, like that rendered by engineers and architects, proves the fact that whenever conditions become so complicated that the demands made of any one man are beyond the normal training and experience which may be expected of one man, that then it is better to divide the work.

The mechanical equipment engineers could greatly improve their standing through a new organization which should be composed only of such consulting mechanical equipment engineers as would agree to uphold the highest ethics of their profession and stipulate as one of their rules that no member would do mechanical equipment work for a fee of less than six per cent.

Such an organization is necessary and will be organized in the near future when more mechanical equipment engineers begin to realize the importance of all asking for and insisting on nothing less than direct contracts at not less than six per cent fee.

Architects who read the foregoing statements will say that all the faults and none of the virtues of architects are mentioned. That is perfectly true. Architects have many fine qualities. In this paper, the points at which improvement is possible are simply pointed out, in the hope that conditions may be improved, and that both the architectural and the engineering professions will overcome their present contrariwise attitudes, and through mutual understanding, adopt such measures as will advance both professions.

In the concluding installment of this paper recommendations will be made for directly employing mechanical equipment engineers and for determining their qualifications and their services.

(To be Concluded)

The Problem of the Single Salary Schedule

The shortcomings of the single salary schedule as affecting the status of men teachers and of further feminizing the teaching staffs of high schools are pointed out in a recent communication of the School Men's Club of Kansas City, Mo., to the board of education of the community:

"As the organization of the schoolmen of Kansas City, we feel that the so-called 'equal pay for equal service' and 'single salary schedule' movements have attained sufficient importance to justify our statement of the case against them from our viewpoint.

"'Equal pay for equal service' is the slogan of women teachers in high school who contend that boards of education discriminate against them because of their sex. By implication they demand a proportionate representation of women in the higher groups of the high school salary schedule and in administrative positions.

"The ultimate result of the adoption of such a policy is the domination secondary school education by women and a further reduction of the already inadequate number of able young men who choose teaching as a life work.

"That the theory ignores the law of supply and demand is undeniable. Judged by past experience, teaching is an attractive career for women; it does not, however, furnish inducements to cause the men best-fitted for the inspiring of youth to prefer it to other vocations. A salary which supports a single woman on a standard demanded by the teacher's position can not be stretched to provide educational and social needs of the dependent family of a married man.

"The economic 'pinch' is demonstrated by the fact that many, perhaps most men in the Kansas City high schools are forced to augment

their incomes by bartering what should be their leisure time. We assent to the principle hitherto laid down by the Board that the school district ought to have a right to the full time of its employees, but we contend that the Board is not justified in exercising that right unless it compensates the employee with a wage sufficient to maintain the employee and his dependent family on the plane of living which the community and the rights of his children demand.

"But aside from the economic aspect of the case, the slogan is itself misleading. To the layman it gives the idea that the service of the women of the schools is equal to that of the men. This idea is false. The extra curricular activities of the school require the services of many teachers at evening and Saturday events; these duties fall almost entirely upon the men who constitute less than forty per cent of the instructional force in the Kansas City high schools. Furthermore, the equality of service in the classroom is open to question, for it is a recognized fact to which school executives will testify that parents frequently request the transfer of their children from the class of women teachers to those of men. Requests for transfers from classes of men to those of women are comparatively rare.

"The 'single salary schedule' is even more dangerous than the 'equal pay for equal service' movement. Its adoption would drive competent men out of the schools much more quickly than does the first policy; it would force men to more frantic efforts to piece out their salaries by leisure-time employment; it is based on a fallacy.

"It is a fundamental principle of the single salary schedule that one's efficiency as a teacher

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Sweden: Its Education and Schoolhouses'

Olof Z. Cervin, Architect, Rock Island, Ill.

An old place is Sweden. So old is its culture that archeologists have traced here our own North European civilization back to its beginnings, and some claim that here lay its cradle and that from here set out those migrating Teutons who gradually covered Europe. In the sixteen hundreds it extended to America, which migration continues to this very day—two thousand a year is the Swedish quota. It may seem absurd to look for a cradle of human beginnings so far North, but remember that the climate and fertility of Southern Sweden are about the same as Illinois, though the latitude is that of Alaska.

Just now they are asking in this old country, if our modern system of education has not got started on the wrong road, and if it is not time for a radical change. How about feeding our children only pre-digested matter, forcing it down unwilling throats, cramming them to the bursting point with knowledge prepared by others—in short, letting the teacher do the work without giving the child's mind an opportunity to develop as a plant in a natural way?

We ask these questions in America, too; there is nothing new about them. Five hundred years before Christ, Socrates imparted to his pupils only a little of his own knowledge. But, he did, by questioning, try to bring out their own powers of self-expression, and through the ages, a voice here, another there, has been raised in protest.

But, perhaps our system is not so bad, and possibly all cannot fully benefit by the Socratic method. (What became of the children of the great teacher, those children who we know existed, but of whom history tells us nothing further?)

But, right or wrong, education such as we know it, is a fetich in these Northern countries, and not the least in Sweden. With all classes above the lowest, it is a matter of pride to get

the best education that can be had. Competition is intense. Note how some Swedish schools have admission tests so rigid that hardly half of the applicants are passed, and mark the age—7 years. All children of 8 and 9 have heavy home work, several hours after supper before bed time. Of course, illiteracy in such an atmosphere is almost unknown, even to the uttermost parts of the almost uninhabited polar regions.

And among the upper classes no one is considered educated who cannot use readily two or three foreign languages. When through with his "elementary" school and about to enter the University, "a student of 17 or 18 has about two years more book knowledge than the average college student of the same age in our country"—which is a quotation taken from one of my American pedagogic friends. In the University there is plenty more hard work. For example, in architecture, with which I am best acquainted, there are, first, four years in the Technology School and then two years in the Fine Arts Academy—nominally six years, but so stiff that he is lucky who can finish in less than seven. After that come three to four years' office work and travel, before the young man can expect to practice independently.

There are two parallel courses of education which have been separate and distinct in the past—one for the common people and one for the upper classes. It has not been thought wise that the laborer's child should have, or can use, the same kind of instruction as the child who is destined for a profession or for the life of ease of a property holder. The one course, in the "folk" school, is free to laborers; the other course is only partly free in schools supported by the state or entirely self-sustaining, but always controlled by the state.

But of late years, in these days of democracy and socialism, the two courses are coming closer, and many a child of the better classes is sent to "folk" schools in the earlier years. More important has been the long struggle, now just about over, for providing intermediate and

higher schools for the children who have graduated from the "folk" school, so that they can, if they will, go right through to the University. Thus the barriers of the classes are being slowly ground away, but there are still many unevennesses to grind at.

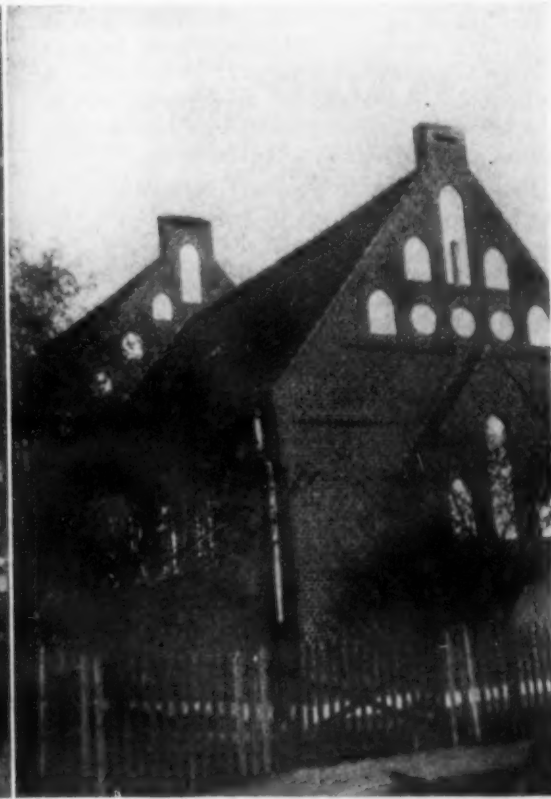
Sweden has two very ancient and very excellent universities—Upsala, and Lund, and one quite modern university at Stockholm, strong in the arts and sciences.

Outside the regular, established and orderly schools there is a great variety of very excellent secondary schools for those who have lost out in early youth or wish to specialize. These schools include technical schools, evening schools in special buildings (see the splendid school from Kristianstad) and schools for agriculture, housekeeping, nursing, schools for sloyd, weaving, for gymnastics, normal schools, continuation schools, and others.

A peculiar institution among the special schools is the "folk high school." (I saw one in middle Sweden which was decorated with original paintings, etchings, and sculptures by Zorn, Prince Eugen, Liljefors, Larson, and leading South European artists, fifty or more subjects that would easily bring half a million dollars at a public sale in our country.) This school gives a six months' course to adults. There are about 25 such high schools and the oldest has celebrated its fiftieth year.

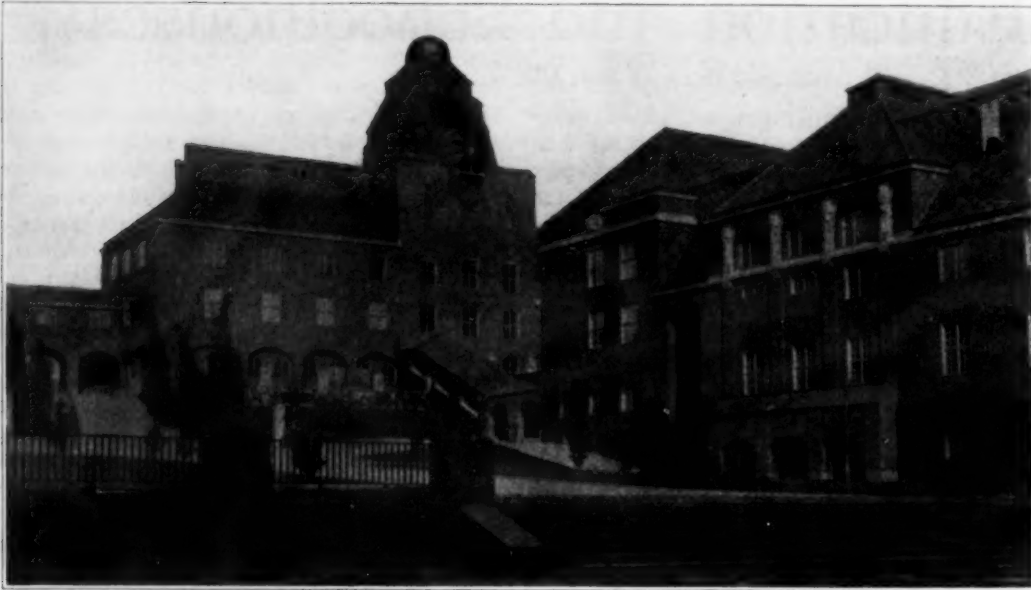
If education is thus appreciated it is no wonder the teachers themselves stand high, so high that the title of "Professor" supercedes that of the profession in which a man is engaged. Thus an architect or doctor who receives an appointment to a University chair is thereafter known as "Professor," than which nothing can give higher distinction to an ordinary mortal.

And so wages and salaries go in this country. Professors and teachers are well paid. I once enjoyed "coffee" in the cozy and comfortable apartment (it was over the schoolhouse as is quite customary) of a country school teacher, who has a class of 20, or less, pupils and whose salary, in addition to the apartment,

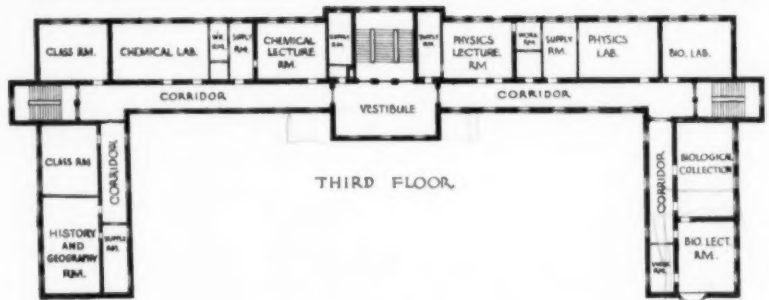
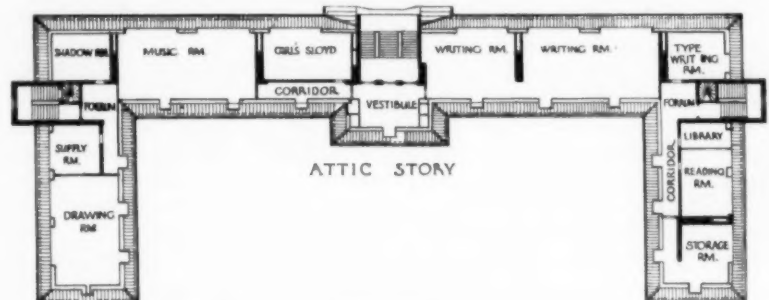


GLIMPSES OF SWEDISH SCHOOL BUILDINGS. (From Photographs by the Author.)

Left—The entrance tower of a Folk High School (Night School) at Kristianstad. This school building is a gift to the city. Center—Entrance of the Folk High School, Christianstad. The bronze figure of Labor is typical of the artistic treasures included in a Museum of Ancient Culture and an Art Gallery housed in this school. Right—A gymnasium in Southern Sweden, separate from the school building.



THE SCHOOL OF TECHNOLOGY AND ARCHITECTURE, UNIVERSITY OF STOCKHOLM.
Note the clock below the astronomical dome, and also the walls extending through the roof.
E. Lallerstedt, Architect.



FLOOR PLANS
OF A
FOLK SCHOOL
AT
STOCKHOLM, SWEDEN.
(TYPICAL OF
SWEDISH
SECONDARY SCHOOL
LAYOUTS.)

is 5,000 Crowns, with, moreover, a pension in old age. Compare this with the salary of the Pastor in the same place, who is paid by the state, has charge of two congregations, and is paid 7,000 Crowns. The Pastor must be university educated, is expected to maintain a household, raise a family, keep maids, travel, and otherwise support himself in a manner proportionate to the greater requirements.

Religion and morality have been taught in the schools for hundreds of years and still are, though in a diminishing degree. They are taught every day of every week of every school year, so that a Swedish child becomes well versed in the principles and beliefs of the faith. Moreover, it is good style, a sort of a "finishing off," to spend a few weeks in a confirmation class of special instruction under the Pastor at the age of 13 to 14.

The School Buildings of Sweden

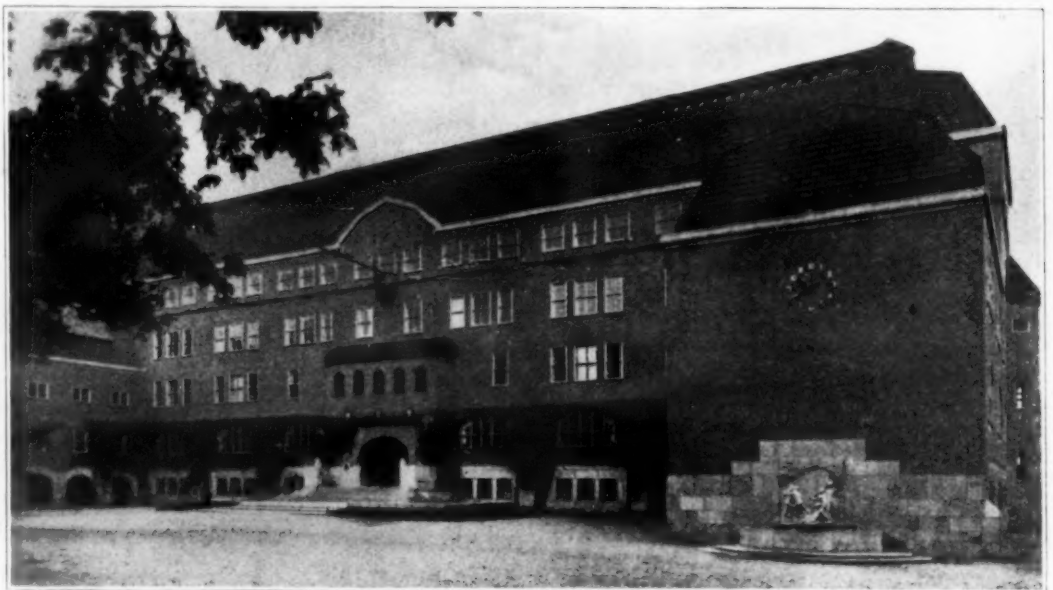
A high standard of education requires a high standard of equipment, and it is, therefore, not surprising that Sweden has splendid school buildings of all kinds. It seemed to me they are on the average as good if not better than what I saw elsewhere in Europe. It might also be said that they are never so monotonous as many of ours, with factory-like repetition of the same size and style of windows. The architects seem to play with their windows and their roofs, and in these there is a wonderful variety.

One notes turrets and towers, with and without clocks, and sloping roofs with breaks such as our architects never indulge in. Clocks are very much in favor and if no tower is avail-

able, they are often placed in a blank wall, a really decorative feature. The upper story is ever an attic story, as a flat roofed school is a rarity, to say the least. The thick inner division walls are often carried right up and through the slope of the roof in a striking manner quite unknown to us. (See illustration.)

Much money is spent on school buildings and, though some are as plain and straightforward as they can be, there is heard a complaint in the land that they are too palatial and expensive. Much as with us there are grumblers in every land.

The plan of the Intermediate School of Malmo, the third city of Sweden in population, shows a building which is a part of the folk school system whereby the less fortunate may obtain a higher education which until these later years, was possible only for the privileged. Besides the regular classrooms, the school provides halls for chemistry, physics and biology, manual training (Sloyd it is called), domestic science, drawing, singing, bookkeeping, a two-story gymnasium and showers. And it has some



A SECONDARY SCHOOL AT STOCKHOLM, SWEDEN. (SCHOOL PREPARATORY TO UNIVERSITY.)
R. Ostberg, Architect.

rooms which we never provide, quarters for the janitor! Just why we do not provide caretakers' rooms, universal in Europe for all public and many private buildings, is a question, it might pay to investigate. Outside the big cities it is customary in most European countries to provide apartments for the teachers, usually above the schoolroom.

An expensive feature perhaps dictated by the long and dark winters is the corridor with rooms on one side only. The same arrangement is noted in hospitals where it may be necessary to give patients a south exposure.

An accepted custom of planning the toilets with an outside entrance only is also to be noted—rather a curiosity.

There are no wardrobes—the clothing is hung in the corridors, a custom we gave up a generation ago.

The classrooms have less, much less, blackboard than we provide, though the teacher has the convenience of a double board, the one sliding up, something we have but in too few schools. The classroom windows are not so large as with us, and farther from the ceiling. This is rather strange in a country where the light in winter is none too good, but is possibly dictated by regard for economy in heating.

Twenty-one years ago, while on a visit to Sweden, I saw buildings with vapor baths and cold water plunges. The school at Malmo has only showers. In a school near Stockholm, just



A STATE CONTROLLED COLLEGE IN A SMALLER CITY—LINKÖPING, SWEDEN.
(Note towers, turrets, wall through roof and clock in gable.)

being completed, there is a splendid pool, tile lined, including even the walls, and a curious arrangement, a trough in which the children are to wash their feet before entering the pool. The children are also required to wash their bodies thoroughly in a large battery of basins and to take a shower—some precaution indeed!

Although the new large schools are of fire-proof or slow burning construction and quite

substantial, the roofs and attic work is of wood. One would expect many attic fires, but an architect connected with an insurance department told me that such fires are rare. Our insurance companies could not see such a construction except at a high premium.

In all Sweden, the cold of the winter is serious and the problem of double windows has

(Concluded on Page 133)

Standard Geography Tests

Ernest C. Witham, Director of Research, Wilmington, Del.

There are not as many standardized tests and scales in geography as there are in some of the other school subjects, e. g., reading and arithmetic. On the other hand, the experiments in this field have been earnest and valuable, and have provoked wide interest. The textbooks on standard tests have given only superficial treatment of the problem of geography tests, or have omitted the subject altogether. Thirteen sample clippings of standard geography tests are shown in the illustration accompanying this article. They are by the following authors or school systems: (1) Starch; (2) Courtis; (3 and 12) Buckingham-Stevenson; (4) Posey-Van Wagenen; (5 and 9) Gregory-Spencer; (6) New York; (7) Hahn-Lockey; (8 and 10) Witham; (11) Whittier; (13) Boston.

There may be great value in measuring the advancement in a school subject by means of a scale, irrespective of its relation to the course of study, if the subject is pursued during the entire school career or a major part thereof, but there can be little practical value accruing from scaling a short term subject like geography. Yet, we find that several authors of tests have preferred to build scales, instead of tests in geography. The division according to tests and scales is as follows:

Scales	Tests
Hahn-Lockey	Courtis
Posey-Van Wagenen	Buckingham-Stevenson
Whittier	Gregory-Spencer
	Witham
	Starch

Tests by City School Depts.

Boston New York

It is true that there are difficulties in the way of geography testing but they are not insurmountable; and the fact that geography has been often taught so poorly—and is still so being taught in many instances—makes it a subject that needs to be very carefully tested. If geographical comprehension is not attainable at the present time, then it is worth while testing for locations and facts.

The tests in geography vary all the way from a simple sheet, to an elaborate eight-page book-

let. The scope of some of the tests is very restricted. For example, the Courtis confines itself to a very few locations only. Other tests involve location, facts, and reasoning, sometimes all in one test (three in one) but often in separate tests.

Some authorities have questioned the ability of anyone to select the geography facts which are most important. It does not follow that the 50 to 100 most important facts in geography for a child to know makes the ideal test in geography. Some geography facts are so essential to all who go through the grades, that they may well be tested with profit to teachers and pupils. Such facts are so simple and fundamental that they cannot turn the project method from its course, or interfere in the least with the highest aims in geography instructions. In fact, many of the tests were created in part at least with the idea that by their aid, geography teachers, superintendents, and principals might somehow plan to economize time spent in poor teaching, or unprofitable drill, using the time to better advantage in teaching the larger units of geography by the project method.

"Geography Test, Series A," by Dr. David Starch, was probably the first standardized test in this subject. This test is printed in folder shape. The test itself is of the completion variety providing 78 questions. It was planned for grades five to eight, and, therefore, of course, is designed to fit no particular course of study. Every blank correctly supplied counts one point. The questions vary from one blank to eighteen blanks, so the questions have this same variation in score values. The test has but one form. Fig. 1 in the illustration is a clipping from this test.

Fig. 2 is a clipping from "Geography Test B, form A," by S. A. Courtis, Detroit, Michigan. There are two of these tests: one locates the 48 states and important cities of the United States, and is suitable for use in Grades 5B to 6A; and Test B locates Oceans and Continents, and is suitable for use in Grades 4A to

7A. "The same tests are used for each grade, the difference being in the time allowance." The tests are printed in folder shape, with outline maps.

Figs. 3 and 12 are clippings from the Buckingham-Stevenson geography tests. There are two tests in this series, as follows:

United States—Information-Problems.

Place Geography Test—The World—United States.

Here we have one of the few geography tests that aims to hit the course of study. This is vitally important, but seems to have been overlooked by most geography test makers.

The first of these tests is in two parts. Part I is an information test with fifty questions. The pupil is to write the number of the correct, or best answer, to each question in the parenthesis before the question. There are four alternative answers printed under every question. Part II is a problem test, with 25 questions, which are handled the same as in Part I. There is a scoring key, and standard scores for September, for Grades 5-8.

Fig. 4 is a clipping from the Posey-Van Wagenen Geography Scales, by C. J. Posey of the University of Kansas; and M. J. Van Wagenen of the University of Minnesota. There is a 27-page teachers' handbook describing the tests. There are three scales for grades five and six as follows: (Folder form) Thoughts S.—thirty thoughts—(the clipping is from this scale.) Information S (general) with thirty questions, and Information A (United States and North America), with thirty questions or statements.

There are six scales for grades seven and eight, as follows:

Information A (United States and North America), 30 questions; Information F (Europe), 30 questions; Information K (South America, Africa and Asia), 30 questions; Thoughts R (general), 30 questions; Information S (general), 30 questions.

Figs. 5 and 9 are clippings from "The Greg-

Some of the salient features of these tests are set forth by the authors as follows: (1) They are the most comprehensive single tests in the field of Geography that have thus far appeared. (2) They are based on what the pupils are actually being taught rather than on what some think ought to be taught. (3) The tests are so designed that a pupil may spend practically all his time thinking out the correct answers and but little time is needed to record them when once thought out. (4) The tests are graded with a score card that is so simple that any sixth grade pupil can score the papers and record the results. (5) No interpretation of the answers is needed by the teacher, hence the personal equation is entirely eliminated. (6) All the possible scores are worked out on the score cards so that no computation is necessary in scoring the papers. (7) The phraseology used in the tests is as near like that used in the textbooks as possible, thus avoiding terms unfamiliar to the pupil.

Part 1. Trade routes and their products, 10 questions.

Part 2. Miscellaneous Geography, 15 questions.

Part 3. Causal Geography (United States),
10 statements.

Part 4. Causal Geography (World), 10 statements.

Page five in each booklet has a group of outline maps.

Parts 5 and 6. Place and descriptive Geography, 24 questions each. They have to do with Philadelphia, Jerusalem, and Shanghai, all in the same test.

Parts 7 and 8. Political and place, 11 questions each.

It is to be regretted that such an elaborate set of tests does not follow the path of the geography learner, instead of jumping around all over the globe in a single test.

Fig. 6 is a clipping from one of the New York City Standard Geography Tests, Series A. They are published by the Bureau of Reference, Research and Statistics, and are not for sale. They are in leaflet form, printed on one side. There are eight separate tests, each having twenty questions confined to a particular phase of the subject.

- | | |
|---------|---------------------|
| Test 1. | Physical. |
| 2. | Drainage. |
| 3. | Mathematical. |
| 4. | Climate |
| 5. | Industrial. |
| 6. | Industrial. |
| 7. | Commercial. |
| 8. | Location of Cities. |

There is a table of norms for all the tests by grades from 4A to 8B. There is also a table of tentative age norms from 8 to 17 years of age.

Fig. 7 is a clipping from the Hahn-Lackey Geography Scale, constructed by H. H. Hahn and E. E. Lackey, of the State Normal School, Wayne, Neb. This is really a compilation of old line geography questions arranged in the form of the Ayres spelling scale. The scale does not fit any course of study, but the teacher is at liberty to choose questions from the lists as she sees fit.

[illegible]

SIGNIFICANT CLIPPINGS FROM GEOGRAPHIC TESTS.

"To find a pupil's score divide the number of correct answers by the number of exercises in the test. The quotient expressed in per cent is the score."

This is not an easy standard test to correct, as there is no uniform manner for pupil response. Pupils write much or little about the four to ten questions, just as in any old-fashioned examination. While there are directions as to "what to accept, and what to reject, in scoring answers," still a great deal depends upon the judgment of the one correcting the examinations.

Figs. 8 and 10 are clippings from the Witham Standard Geography Tests, first and last tests respectively of the series. These tests were started ten years ago, and in January, 1915, there was an article in the JOURNAL by the author containing the beginnings of the United States Test, separately published in 1918.¹ The World Test was published in 1916, and was described in an eleven-page article in the Journal of Educational Psychology.²

There are eight tests in this series, and they were built up in the schoolroom. The idea is that the time to test a child's knowledge of South America is soon after he has completed this continent, and the same for all the other great divisions of the world. There are complete directions, reliable norms, and diagnostic graph sheets. The series is as follows:

- | | | | |
|---------|-------------------|--------------|----|
| Test 1. | The World | Total Points | 55 |
| Test 2. | The United States | Total Points | 66 |
| Test 3. | South America | Total Points | 48 |
| Test 4. | Europe | Total Points | 55 |
| Test 5. | Asia | Total Points | 55 |
| Test 6. | Africa | Total Points | 49 |

¹Minimum Standard for Measuring Geography. E. C. Witham. School Board Journal. Jan. 1915. P. 13.

²Standard Geography Test—The World—for Fifth Grades, Journal of Educational Psychology, October, 1918.

Test 7.	North America.....	Total Points	62
Test 8.	Commercial Geography.....	Total Points	75

Fig. 11 is a clipping from the Whittier Geography Scale, from the State of California, Bureau of Juvenile Research, Whittier State School, Whittier, California. There are no norms or directions. The test is in the shape of a small, eight-page booklet containing eight parts or tests as they are called. They are as follows:

1. Geographical names.
2. Cities.
3. Products.
4. People.
5. Physiography.
6. Islands.
7. Travel.
8. Animals.

The sample is from test No. 7.

Fig. 13 is from one of the research tests in geography of the Boston Public Schools, Department of Educational Investigation and Measurement. These tests are not for sale. There are four tests in the series, as follows:

One for Grade V (the sample is from this one) and one each for Grades VI, VII, and VIII. They are all in large folder forms. Every test has ten questions. The first three pages of all the folders includes a large outline map of the United States, and the first four questions, which are the same for all tests. The last six questions only are different in the four tests. This confines the test to such a narrow limit that it does not test very much geography.

Pressey in his book, "Introduction to the Use of Standard Tests," sums up the use of geography tests as follows: "The use to which these tests may be put may be inferred from their general nature. Most of the tests aim primarily to give a general measure of attainment in geography, and results are more significant than

(Concluded on Page 129)

The Supervision of High School Instruction

A. H. Horrall, Superintendent Training School, Cheney, Wash.

The opinion has long been prevalent that if a person "knew a subject" he could teach it and, as a result of this mistaken idea, the more mathematics a man had been exposed to in the college or university the better teacher he would be. But, running true to form, the modern high school boy has come forward with the brazen statement that "that fellow (meaning his instructor) may know his subject but he can't teach it." At first it was thought that this statement came from the few unfortunates who received grades designated by letters further down the alphabet than C. Soon it was noticed that even the best students in the class were commenting on the lack of ability possessed by the so-called instructor. Then, and not until then, did we begin to admit the fallacy of the "know and teach" doctrine. Then the college introduced the "methods" courses for high school subjects which they had worked over from similar courses offered in the normal schools for elementary subjects. As everyone knows who has ever taken a "methods" course, many methods and ideas are studied that never could be practical, some of them have been worked out by persons who have never taught a high school class. A famous school administrator is credited with saying to the beginner in his system, "Now, just forget all that you learned at normal or college and begin teaching school." In 1910 Stanford University introduced "practice teaching" into its curriculum for high school teachers; Dean Bolton informs me that "practice teaching" was in the course of study at the University of Washington when he arrived there in 1912; and so on, until today all of the higher institutions of learning that attempt to prepare students to become high school teachers, are offering courses in "practice teaching," which is really teaching under supervision.

Nutt, in "The Supervision of Instruction" states the problem in these words: "The attempt to train high school teachers is of recent date, and the schools that are equipped to do the work are not nearly so numerous as the normal schools. The result is that only a very small part of the number of high-school teachers who begin teaching each year has been anything like professionally trained. The high schools are vastly worse off than the elementary schools, and in fact as bad if not worse off than the rural schools, when it comes to professional efficiency of its teaching force. Therefore, all the arguments that have been advanced for the need of making adequate provision for the supervision of the teaching activities in the elementary city and rural schools hold most emphatically for the high school. The only way to escape the necessity of making provision for thoroughgoing supervision of high school teachers is to provide enough agencies for training high school teachers to supply an adequate number of trained teachers to keep the ranks full. The day when that ideal condition will be reached is far in the future; hence today must take care of itself and even provide for the many tomorrows that must come before that ideal condition can be even approximated."

Supervision is Essential

If the principal of the high school is to know and be responsible for the kind of instruction that his teachers are giving to the pupils under their care, he must supervise that instruction. How is an individual going to know of the ability or pass judgment on the possibilities of a teacher unless he has actually seen that

teacher at work in the classroom? He may possess a keen sense of detecting "teaching ability" in an applicant, but a year later when the signs undoubtedly point to failure on the part of that teacher can he conscientiously say that he did all he could to make a real teacher out of this person unless he has *supervised her work*? What right has he to recommend this or that teacher for dismissal if he has not visited some of her classes and tried to help her to improve?

And yet we hear high school principals say, as did this one in charge of a school near San Francisco, "I don't intend to visit my teachers while they are conducting classes. What right have I to go into a Latin class and tell that teacher she is not teaching Latin in the right way? I don't know whether she is or not, I never studied Latin in my life." This principal is laboring under the impression that the statement "one must know a subject to teach it," is identical with "if one knows a subject he can teach it." With the supervisory problem disposed of so easily there is nothing left for this principal to do but make up his records, time the teachers, manage the fire drills and carry the keys to the supply room; for this he received more pay than any of his teachers.

Let me stop here long enough to explain that when I say "high school principal" I mean the person who does the supervising in the high school. In the small high school, frequently, the principal has to teach during the entire day; in this case it may be the superintendent who does the supervising. In some exceptionally large schools, the principal may have to depend on the heads of the different departments or the vice-principal to assist with the supervising, but, after all, he is the one who should be responsible for the kind of teaching that is being done in his school.

Whoever the supervisor may be, one of the very first things he must do in order to be successful is to gain the confidence of the teaching force. He cannot be a rubber-heeled detective that glides up and down the corridors, listening outside closed doors for any unusual disturbances. He should not, in any sense, merit the title of "snoopervisor" rather than supervisor. This then is the first big problem of supervision, *how to gain the confidence of the faculty members.*

Meaning of Supervision

It goes without saying that in order to direct the work of teachers one must not assume an air of aloofness nor leave the impression of



bigotedness; confidence is not based on impressions of this kind. A brief study of the word "supervision" may assist us. If we realize that a supervisor must have super-vision, higher-vision, broader vision than the persons he is trying to direct, he will not stoop to petty favoritism nor use his position as a means of appeasing some grudge. The supervisor must show his teachers that he is there to *help*, not to *criticise* them. If supervision is being introduced into the high school for the first time, the supervisor must expect to have some of the teachers resent his presence at first; this may be true particularly of the teachers who are older in the service than the supervisor. If the teachers are to consider him as a helper, he must be able to assist them with their difficult problems. It isn't sufficient to *offer* assistance, he is there to *give* assistance and after the teacher has discovered that he is really trying to help her to become more efficient, I know of nothing that will gain her confidence more quickly.

A second problem is that of visitation of classes. Of course, we understand, that a supervisor must visit classes and actually hear and see the teacher at work. But the problem comes when we try to decide what is to be done *after the visit*. According to the way they work, some supervisors seem to think that they have done their duty when they visit a classroom. They do not stop after the visit to talk with the teacher about the work but seem to think that their mere presence is sufficient to inspire the teacher to do her best. Usually when this kind of a person visits, the teacher does her poorest work for she knows that she is being "inspected." Charles Hughes Johnston, who has written much concerning secondary schools, says that the supervisor should visit the room at least twice before calling the teacher to the office for conference. This may be true if there are some serious deep-seated principles of teaching to be discussed, but frequently a supervisor will notice some outstanding faults that should be corrected *at once* (this is particularly true of new teachers). Usually the young, eager-to-be-successful teacher will come to the office after the first visit to ask for suggestions and help. These people are not difficult to assist.

But what is one going to do after visiting a classroom for the second or third time that is presided over by a person who has had several years of experience, perhaps all in this school system, and one finds that the pupils are not giving attention, the instructor is doing most of the talking and interest in general is lagging? Undoubtedly you must call this teacher in for a conference but not until you have pretty well in mind what you are going to say. It is not well to begin by tearing the work you have observed to pieces. This will gain only resentment on the part of the teacher. Why not discuss first of all the *good* things that you saw during your visit? It is a poor recitation indeed that has *no* good points about it. After discussion of the commendable things the others that need most attention can be approached more easily.

Specific Criticisms

The supervisor must be *specific* in his criticism of work observed. It is not sufficient to say that "the attention was poor" but rather "John Jones was talking to Mary Smith during the entire recitation" or "the three boys in the back of the room were paying no attention to

what was being said." It isn't enough to say, "You did too much talking," but rather "during the forty-five minutes, you asked sixty questions and talked two-thirds of the time." Suggestions should be offered as to how to overcome these difficulties. It might be that the only way to keep John from talking to Mary during the recitation would be to put one in one corner of the room and the other in the opposite corner, but it may be that since the attention was bad in all parts of the room that the instructor may have been at fault.

The recitation must be made more interesting. Undoubtedly, since the teacher took most of the time for asking questions, she wasn't really conducting a *recitation* at all; if the pupils were given a chance to do some of the talking themselves they might become more interested in what the teacher was trying to do. At least, the supervisor must suggest means of improving the situation or he had better not call the teacher for the conference. Sometimes he will notice that things are not just as they should be but he can think of no correct solution; if he mentions the difficulty to the teacher she may be able to see the solution herself. This anticipates, of course, the good will of the instructor.

Some persons think, as did the California principal mentioned a moment ago, that in order to supervise a subject the supervisor must know more about the subject being taught than does the instructor. This notion probably comes from the practice of employing special supervisors for special subjects in the elementary schools, as art, manual training, music, etc. It would be folly to try to find a high school principal who was especially trained in all of the subjects that are to be given in his school; yet he must supervise the work that is being done in all of the subjects. Even though the supervisor does not "know" the subject as well as the teacher does, he should be able to tell whether or not the pupils are getting anything from the instruction by the attitude in the classroom and the general principles employed by the teacher in conducting the work in the classroom. I can conceive of a supervisor visiting a class in Esperanto being conducted in the popular "direct method" where English is not being spoken during the entire recitation. The supervisor may never have heard a word of Esperanto before and yet, I contend, after a couple of visits to that class and talking with the instructor (in English) he should be able to tell whether or not that instructor is succeeding. It might be difficult for him to help the teacher with any of her special problems but the same *general principles* should apply in teaching Esperanto that apply in the teaching of French, Spanish or even English.

Knowledge of a Subject Not Essential

As a matter of fact, it is better that the supervisor *does* not know more about all the subjects in the curriculum than the instructors do; for, if he did, there would be a much greater tendency toward dictatorship than there is now. No one should get the impression that "supervisor" is synonymous with "dictator;" a dictator is never helpful (in the sense that a supervisor should be helpful), he commands.

Take another case, if the supervisor knew more about the subject than did his instructors he would be inclined to outline the work to be done and expect the teachers to follow his specific directions. This would tend to make the work too uniform and would kill any initiative the instructor might have. The favorite saying of one of our great educators is, "uniformity is the curse of a small mind." Dr. Cubberley, of Stanford, illustrates this very well in the following way: When he was working in Baltimore on a survey of the schools of



JOHN H. LOGAN,
State Commissioner of Education,
Trenton, N. J.

In the selection of Prof. John H. Logan of Rutgers College as the new state commissioner of education for New Jersey, the Governor has selected a man who fully measures up in the possession of the qualities deemed necessary for a position of this character. While Mr. Logan's professional duties have been largely along collegiate lines, he has at all times been intensely interested in and is exceptionally well informed concerning matters relating to public education in the state.

Professor Logan was born in Pike County, Alabama, in December, 1876, and attended the Mercer preparatory School at Macon, Ga., and was graduated from Mercer University in 1900. He gave a year to the study of law and also did postgraduate work at Columbia University for a year, and then spent three years in special study in the universities on the Continent. From 1907 to 1910 he was instructor in history and modern languages at Colgate University, and in 1910 was appointed acting professor of history in Rutgers College. In 1913 he was appointed professor of history and last year became professor of history and political science. Prof. Logan has made frequent visits to England, France and Germany during the last eighteen years for the purpose of studying the school systems of these countries.

that city, he was visiting a building one day with the city superintendent; just before they entered a classroom, the superintendent pulled out his watch and looking at it said, "I can tell just exactly what is being taught in this room before we go in." Dr. Cubberley immediately replied, "Don't you think you could tell when we got inside anyway?" That superintendent had taken away all chance for initiative on the part of the teacher. She had no voice in making up the program she was to use all year but must do what was being done in every other school in Baltimore at the same time. The good supervisor will not try to down the initiative of the teacher but will try to develop it, for this is one characteristic that is essential if the instructor is to continue to grow in service.

Keeping the Teacher Alive

This brings us to the next great problem that the supervisor must face, namely that of helping instructors to keep alive while teaching. If the school system does not offer a bonus for summer attendance at college or university, the supervisor must make suggestions to the teachers as to how they may keep up with the best thought in education and not get into a rut. Good educational magazines are always helpful; the supervisor should be informed on the best, new books that would be useful to the teachers in different lines of work.

A good way to help the weak teacher to improve is to ask her to visit, during one of her vacant periods, some teacher that you know is exceptionally good; after the visit the supervisor could very profitably talk over the recitation with both teachers and get the reasons for doing certain things from the better teacher. If the supervisor has sufficient confidence in himself, he may attempt to teach a class before a group of teachers or at a faculty meeting.

This is rather risky business and is a real test of a good supervisor; for the teacher is constantly thinking, "what would he do if he had to teach?" If the supervisor can arrange to do this and is successful in the demonstration, he should have no further difficulty in obtaining the confidence of those under him. It might be well for some particularly successful teacher to give a demonstration before the entire faculty, then the recitation could be discussed freely by all; this is a good means of helping all teachers to improve while in service. Many of them will be able in this way to contribute to the betterment of all.

A suggestion that has been offered by one supervisor for helping the teacher to improve her instruction and "teaching sense" is to assign some work for her to do other than actual teaching that will get her into closer contact with some of the pupils. She may be appointed as adviser for one of the school organizations, or she may take part in some school activities, so that she will come to *know* the pupils better. She becomes a better teacher because of this "personal touch" and is more familiar with the needs of the individual.

The supervisor should make it his business to find out what each teacher can do, or thinks he can do, best; should give him the opportunity to perform that task, or to cooperate with other teachers in doing it; should help him, as far as possible, to do it increasingly better, and should always see to it that the instructor is *given credit* for what he does or has done. The supervisor should always welcome suggestions from his teachers; for in the minds of the individual instructors of a high school faculty there are sure to be valuable administrative and professional ideas, which ought to be the common property of the whole group, to the end that all the teaching may be improved. Again, if the instructors are encouraged to offer suggestions and the suggestions are acted upon, every teacher in the entire high school will have a more personal interest in the affairs of the school outside of his own classroom because he is made to feel that his suggestions on any question are always welcomed. An instructor who feels that his efforts are appreciated by the supervisor, and who is sure he is going to get credit where credit is due, is both eager and able to do a higher grade of work because of that fact.

The Incompetent Teacher

Another question that is bound to arise is "what is to be done about the teacher who has been visited, found wanting and who has not improved after all possible suggestions had been made?" We say, at once, she is not fitted for this kind of work and should not be reemployed. That is well enough to *say* but it is a disagreeable thing to *do* even if the teacher knows and admits she is not a success. Some supervisors have used sheets to point out where the teacher stands in relation to the other teachers of the system. A rating sheet can be made one of the most unfair contrivances that were ever concocted by a college professor. If it is to be used at all, it is essential that *more than one person do the rating*. The supervisor may make ratings on his various visits; he should encourage the teacher to rate herself; if she is working directly under the head of a department, then the departmental head should rate her also; the more ratings that are made by different people, the more apt is the final decision to be fair to the teacher in question. Undoubtedly, the rating sheet when used fairly, may be of great assistance in judging the value of a teacher. If the supervisor tells the superintendent that he "has done everything possible," to help the teacher to become efficient, that she

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The Work of the School Janitor

VI. The Cleaning of Windows and Toilets — Washing Glass

Charles E. Reeves, Ph. D.

Frequency and Time of Cleaning Glass:

Fifty of the ninety rules and regulations studied made specifications for the frequency of washing windows, while 22 others specified that windows should be washed "as often as necessary" or "as directed." Of the fifty rules making specifications, the range varied from monthly to yearly. Twenty-five of the fifty specified that windows should be washed three times per year. None specified different frequencies for outside and inside window washing. In practice, however, this distinction was made. In the schools observed, inside windows were, in most cases, washed three times per year, while on the outside the practice was to wash them either two or three times per year.

The time for window washing was, both in practice and in requirements of rules and regulations, the vacation periods. Some janitors, however, pointed out the difficulty of washing them on the outside during the Christmas vacation, but some did wash them during this period. During this vacation there are usually some days in which the weather is warm enough for this work.

But, on the inside, windows were not kept sufficiently clean. Schools in which high standards of cleaning were maintained in other respects had dirty windows. Janitors realize that windows are not kept sufficiently clean but plead lack of time and use of the rooms as causes for such conditions.

The writer believes that a program can be devised by which janitors can keep all windows clean. Observation of windows which had not been cleaned for three months, and tests by rubbing a clean cloth on them, showed that there was far more dirt on the inside of the glass than on the outside. The dust of the schoolrooms, rising into air humidified by escaping moisture from radiators and the breath of children, settles on windows, soon producing a coat of dust particles which become more and more dense. On the outside the air is less dusty and damp. The fact that windows do not become so dirty on the outside is somewhat fortunate, in view of the difficulty of washing outside glass and account of it should be taken in laying down a program of window cleaning.

If windows are washed three times per year, at vacation periods on the outside, and monthly or even oftener on the inside, it would seem that they would be kept sufficiently clean. They could be washed on the inside during the school terms as well as at vacation periods. Rules and regulations in three cities provide for, and two of the eighteen schools studied, practice the cleaning of inside windows during school hours. If this is objectionable for classrooms, all windows of corridors, basements and special rooms, at least, can be washed during school hours. Since one or more janitors must be on duty during the noon hour, it may be convenient to use that time for washing classroom windows, or if not, a portion of Saturday morning may well be used for this work.

Criteria for Judging Methods: In the present study of conditions, appliances, agents and methods of procedure, the principal criterion is the time required rather than the quality of results. Many janitors do excellent work when they wash windows, but it is poor economy for janitors to spend from one-half to two-thirds of the total time spent at this work, in polishing windows after they are clean, and then to leave them so long before they are recleaned that they are very dirty most of the time. Polishing may be desirable, but more frequent cleaning is more desirable. If more frequent cleaning can be secured in no other way, then it should

be secured at the expense of the time used in polishing them. Windows washed and dried are usually windows cleaned by whatever method used. Where this is true, polishing is a minor consideration.

Conditions Affecting Window Washing: The side of the window to be cleaned and the size of panes in the window affect the time required for cleaning windows. It takes less time to clean windows on the outside than on the inside, where it has been the same length of time since the previous washing because inside glass is the dirtier. However, if the time required to climb out to the window sill and back is added to the time required for cleaning outside windows, then it requires more time to clean outside glass.

The size of pane is important in window cleaning. Most school windows have small or medium-sized panes of glass. The reason is due doubtless to the fact that windows of schools are frequently broken and boards of education find it cheaper to replace panes of small or medium size.

The size of pane has an inverse relationship to the time required to clean windows. A number of janitors were observed cleaning panes of various sizes. In each comparison of time required, all conditions, appliances, agents, methods of procedure, and individuals performing the work were maintained equal, the only variable being size of pane. The work of five janitors was observed, from two to four different sizes of pane being compared in each case. It was found, in every case except one, that there was an advantage from the standpoint of time required for the larger panes. There were twelve comparisons in all, each being an average for the cleaning of a number of windows. The differences in time favoring the larger windows were very significant. In the one exception, the windows were nearly the same size and the time was nearly the same. In general, it is clear that the time required per square foot increases as the size of the pane of glass decreases.¹ If the cleaning of windows were the only consideration, large panes should be the rule. Since replacement must be considered as well, probably present practice of medium-sized panes is best.

Appliances Used for Cleaning Windows: A cheese cloth and a chamois, sometimes used in reverse order, are the most common appliances used for washing windows. Others used are two cheese cloths; a sponge, a chamois, and a cheese cloth; a sponge and a chamois; two chamois; one chamois; and window brushes. Time was taken for the cleaning of windows by several janitors using the various appliances and controlled experiments were conducted by use of the various appliances. In both observations made of the work of janitors, and in the experiments, the results showed that use of the cheese cloth as a means of washing windows, followed by use of the chamois for drying them, was the most rapid of the effective means of cleaning windows. Use of one chamois proved to be slightly more rapid, but it soon became so dirty that it did ineffective work. It is necessary, in order to avoid streaks, to use two appliances, one for washing the window and one for drying it evenly. The appliances requiring most time were the sponge, the chamois and the cheese cloth when used in the order named. This is to be expected since there were three appliances to use instead of two.

With the cheese cloth and chamois, wherever

the latter was used as the final drying agent, less time was required than where the former was used as final drying agent. This was true, not only in experiments conducted by an operator who had no preference as to which appliance should be used for drying, but also in observations of an operator who preferred to use the chamois for washing windows and the cheese cloth for drying them. This operator was induced to depart from habitual practice and to use the appliances in reverse order. The time was carefully taken in both cases, with the result that it required, on the average, 198 seconds to wash a window 51 inches by 48 inches, containing six panes of glass, when the chamois was used as the appliance for drying, and 230 seconds on the average, for the same sized windows when the chamois was used for washing and the cheese cloth for drying. This is a difference of 32 seconds per window. In the controlled experiments, there was a difference in favor of using the chamois as a final drying appliance of 41 seconds per window.

A chamois is a better drying agent than a cloth. If it is clean and wrung as dry as possible, rubbing it once fairly hard against the window, so all space is covered, is sufficient to dry the window evenly, leaving no streaks. A window must be wiped many times with a cheese cloth in order to dry it without streaks. Especially is this true after the cheese cloth has been used as the appliance for final drying on several windows and has become slightly damp. Moreover, any cloth used as a final drying agent will, as it is worn by the glass, leave lint on the window pane. The chamois used as a final drying appliance will avoid this. On the other hand, for washing a window a chamois is no better than a cloth or sponge.

Use of the window brush is also rapid, but the windows washed by this means are not dried and remain streaked after washing. For this reason the brush cannot be recommended as a means for cleaning glass. Furthermore, this method is to be condemned because, to be effective, at all, such a liberal amount of water must be used, that it must necessarily be splashed on the wall and run from the window to the floor. The sponge or cheese cloth for washing and the chamois for drying are, therefore, to be recommended as the best appliances to use for window washing, since they are the most rapid of those methods that produce acceptable results.

Use of the hose on outside windows has the same effect as the brush, only the streaks remaining are more marked. Nevertheless, in some of the schools observed, the hose was the only means the janitors had of washing windows on the outside. In some cases window straps were not provided. The large windows (not panes) of schools make it impossible for all space to be washed by reaching over or under the window when it is raised or lowered. Washing windows in this manner would be impracticable where so many windows are concerned, because of the time required, even if it were possible. Window straps should always be provided for janitors, and every window should be equipped with two solid hooks; janitors should feel safe in climbing out on the window ledges and be free to use their hands for cleaning the glass without having to hold on to keep from falling.

In washing upper window glass on the inside, a solid window ladder of the four-leg type, with a flat top on which a pail of water can be placed, is essential. If janitors have to stand on a narrow, six-inch sill, most of their energy is spent in holding the pail and in maintaining their balance. They can work better and faster if they stand so that their bodies are balanced and both hands are free.

Cleansing Agents and Treatment: In most schools warm water was used as the agent for

¹For table see, Reeves, Charles E., *An Analysis of Janitor Service in Elementary Schools*, Contributions to Education, No. 167, Teachers College, Columbia University, New York, N. Y., 1925.

cleaning windows. To this a little ammonia or kerosene was usually added. Janitors maintain that the addition of a little kerosene or ammonia will cut loose the dirt that adheres closely to the glass, such as fly specks, and will give added luster to the glass. A little less than a tablespoonful of kerosene was usually added to a sixteen-quart pail of water. In one-third of the schools, a well advertised powder (which we may designate as X-powder) with warm water was used as the cleaning agent.

Let us consider the relative merits of the use of water treated in either manner with the use of X-powder as a cleansing agent. The average time required to wash 48 windows with water treated with kerosene was 12.25 seconds per square foot. The average time required to wash twenty windows with X-powder in water was 13.20 seconds per square foot. This shows a small difference in time required in favor of the use of water treated with kerosene. As to the results secured when the glass alone is considered, there is little choice, both agents giving the very best possible results when used in the best possible manner.

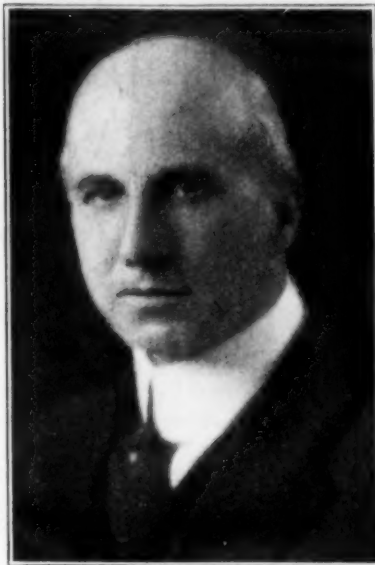
In the case of X-powder, however, there are other results that should be taken account of. Nine of the head janitors in the eighteen schools studied expressed a dislike for X-powder. They gave the following reasons for disliking it:

1. It produces a fine dust to float in the classrooms.
2. It is too dirty to use, and is hard on the hands.
3. It is hard to get out of corners of the window sashes.
4. It smears the window frames.
5. It fills cracks and corners and sticks to the putty so that on outside glass, the first rain will streak the glass.
6. The use of water treated with kerosene or ammonia is much more rapid than the use of X-powder.

There can be little question that X-powder produces a fine dust to float in the air, is dirty to use, and hard on the hands. It is also somewhat slower than the use of water, because the person cleaning must return to wipe off the dried windows. Observation of work done by various janitors who used X-powder leads the writer to believe that the third, fourth and fifth objections are also true in the majority of cases. However, he observed one case of a janitress who could use the material without these bad effects. She rubbed a very light coat of wet X-powder on the glass. She was careful to smear the material close to the putty and corners without touching them with her cloth. In this manner, the results, so far as the windows themselves were concerned was good. This was the only case in which X-powder was used in this manner; but even here, the other objections noted hold true. Most janitors who use the material spread a heavy coat of the powder on the glass. The smaller the pane of glass, the more objectionable is the use of X-powder because of the difficulty of keeping it off the sash. Even the janitors who could use it so well, made an extra trip for clear water for washing the glass of a partition panel which had very small panes. We must, therefore, conclude that clear warm water, treated with a little kerosene, is superior in every case and far superior in most cases to the use of powdered X-powder in water as a cleansing agent for glass.

Methods of Procedure: Three methods of procedure were observed in use by janitors in washing glass. They are as follows:

1. Rubbing the glass with the appliance, back and forth (crosswise of the pane), both in washing and in drying or polishing.
2. Rubbing the appliance up and down (from top to bottom of pane).



WM. A. MOORE,
President Board of Education,
New Rochelle, N. Y.

William A. Moore has recently begun his second term as president of the Board of Education, New Rochelle, N. Y. During the past year gratifying progress has been made toward the completion of a building program that will give New Rochelle a well organized system of schools.

The Woodrow Wilson High School, costing approximately a million dollars, will be ready within a year. This will be a senior school, the present beautiful high school becoming one of the three junior high schools that will be ready by September, 1926. One of the junior high schools, the construction of which has been begun, is located on a twelve-acre site, and will have an athletic field that will meet all possible needs of junior high school pupils. Mr. Moore is an advocate of adequate playgrounds and athletic fields for all schools.

Mr. Moore, a Yale graduate and a prominent lawyer of New York City, is in full sympathy with what is best in present-day education, and is a hearty supporter of all measures designed to give New Rochelle a system of public education that will best meet the needs of all classes of pupils.

3. Making a circular movement over the pane.

By each of these methods it is necessary to give the glass a special rubbing around the edge of the sash.

The average time required by janitors observed to wash windows by the first method was 8.8 seconds per square foot. The average time required by the second was 4.2 seconds per square foot and by the third method seventeen seconds per square foot. However, various janitors conducted the work, some being naturally more rapid workmen than others, and various appliances and agents were used, some being superior to others.

The three methods were, therefore, timed under controlled conditions, but one workman doing the work by the use of the best appliances and agents. Lower windows of equal size, fourteen inches by fourteen inches, nine panes to the window, all inside glass, were used in the experiment. The results were that it required an average of three minutes three seconds to wash a window by the "back and forth" method. It required an average of three minutes seventeen seconds to wash an identical window by the "up and down" method, and three minutes, 58 seconds by the "circular" method. According to these data the "back and forth" method seems to be slightly superior to the "up and down" method although both are superior to the "circular" method. There is probably little choice between the two better methods since the experiments showed little difference. Both the "back and forth" and the "up and down" methods are systematic and eliminate duplication both in washing and drying, while the "circular" method requires much duplication in both processes.

The saving of 55 seconds per window by the "back and forth" method over the "circular" method may seem small, but in a building having, for example, 125 double windows to be washed both on the outside and inside, there would be a saving of more than 7.6 hours, or nearly a day for one man, due to the attention to method alone. While the number of cases used in the experiments were too small to determine that 55 seconds per window is the exact

saving, it is likely that the amount is great enough to warrant consideration of method on the part of janitors.

In washing windows the work will be greatly facilitated if the janitor will either raise or lower the window in order to have it in the most convenient position, which is to have the middle of the window even with the janitor's shoulder. In the case of ordinary school windows, this practically eliminates reaching or stooping and allows the same pressure to be applied at this height with much less effort.

Cleaning of Other Glass: Thirteen rules and regulations require that glass of doors shall be washed with a frequency ranging from weekly to yearly. Seven others require that they shall be washed "as often as necessary" or "as directed." The median requirement of the definite frequency specifications is three times per year. In the schools observed the glass of doors was washed weekly in eight schools and performed weekly, the work was often done on three times per year in eight others. Where performed weekly, the work was often done on Saturdays, but in some schools it was performed during school hours. Where performed three times per year, it was done during vacations.

The washing of transoms, cupboard doors, cases, mirrors and glass fixtures ranges, both in the requirements of eleven rules and regulations and in practice in the schools observed, from weekly to yearly. In most cases door glass, cupboards, transoms, etc., are not cleaned with sufficient frequency. Children almost invariably open doors by pushing against the glass, and finger marks on cupboard doors and cases are very common. In the best schools observed, glass of doors, cupboards, etc., was washed thoroughly every week and wiped with a dry cloth every day. Since it takes nearly as long to wipe glass as to wash it, and if marked badly it may take longer, it would seem that glass of doors should be washed daily or at least twice per week. Glass that is less likely to become fingermarked every day, such as that of cases, cupboards, etc., might well be washed weekly. Transoms, glass fixtures, etc., should be washed three times per year at least, supplemented by frequent dusting.

Much of the work of cleaning glass of doors, transoms, cupboards and cases in corridors, etc., may be performed during school hours without disturbance of classes. Cleaning of glass in classrooms, may best be performed on Saturdays, or at vacation periods according to the needed frequency. Conclusions regarding conditions, appliances, agents and methods of procedure set forth above for the cleaning of windows apply, in the main, to the cleaning of glass of doors, cases, cupboards, etc.

Cleaning Toilets

Toilet cleaning should be one of the most frequent jobs of the janitor. It is, of necessity, an extremely important job. Nothing will condemn the work of a janitor so quickly as a bad odor coming from toilets. It is almost the first thing a visitor will notice upon entering a school building. While it is a minor item so far as time required by the janitor is concerned, it is a major item in importance and is one of the principal items upon which the janitor's work will be judged.

Frequency and Time of Cleaning Toilets: The requirements of rules and regulations and practice in the schools observed showed wide variations in the frequency with which toilet rooms are scrubbed, mopped or flushed with hose. These varied in each case from four times per day to yearly. Definite frequency requirements were specified in 39 rules and regulations while 26 others specified that this work be performed "as often as necessary" or "as directed." Of the 39 rules making definite frequency specifications, seventeen specify that

(Continued on Page 133)

The Manitowoc High School

In choosing a site for their chief educational building, the City of Manitowoc selected a 22-acre piece of ground at the extreme southeast corner of their corporate territory. This was favored because of its size, and on account of the attractive lake frontage and interesting natural topography. No other piece of ground so great in area existed any nearer the center. The principal approach to the group is on Eighth Street, the main thoroughfare of the city which, at its southern end, gradually rises to its termination in the court in front of the high school.

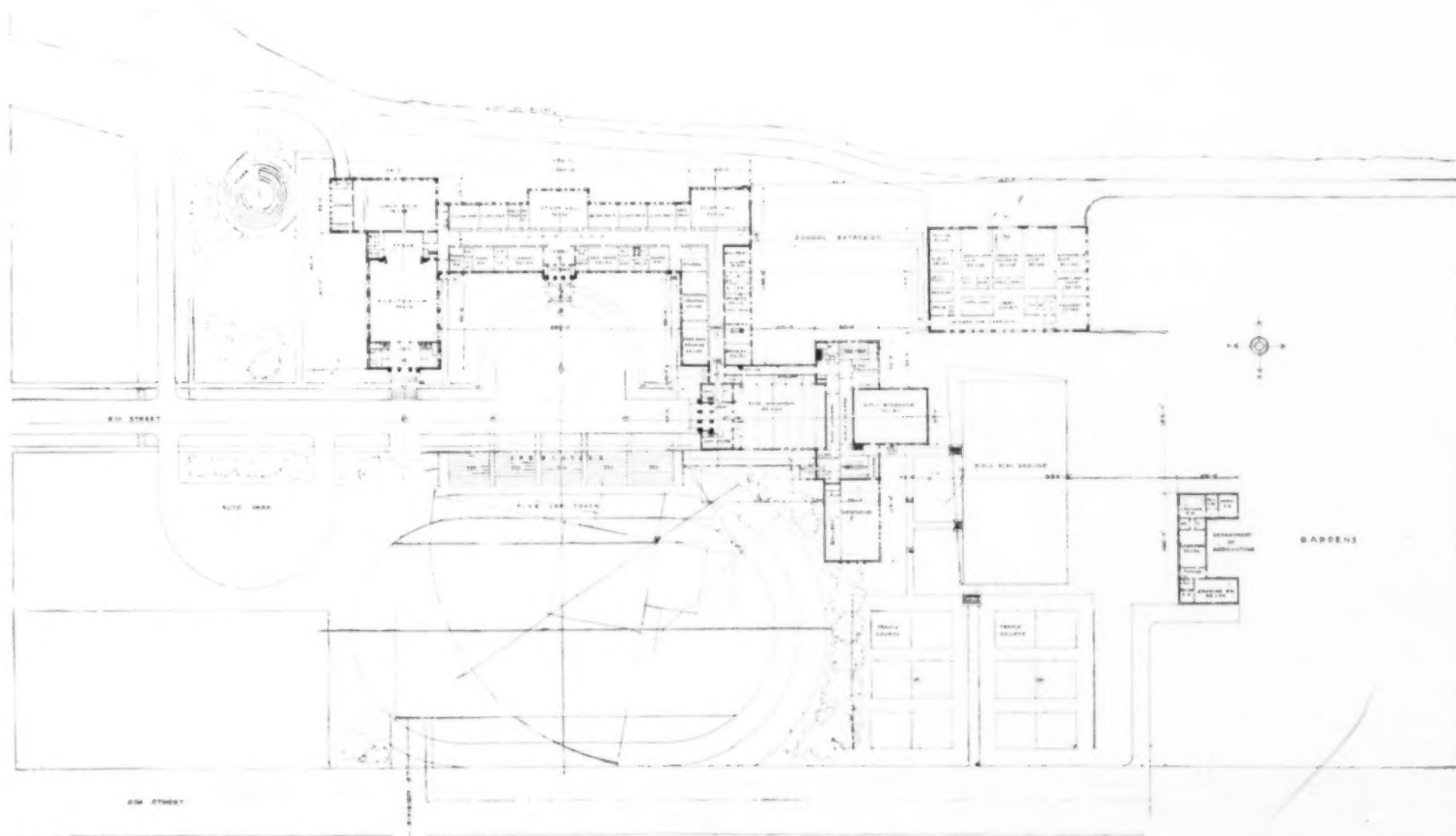
The level upon which the academic section has been erected is about 70 feet above Lake Michigan, whereas the entrances to auditorium and gymnasium sections are about ten feet lower and much of the western part of the land is only about 30 feet above water level. It is upon this high level that the most important masses have been placed and this center has been further emphasized by the graceful tower which can be seen for miles over the country and, to quote one of the board members, "puts the City of Manitowoc upon the educational map of the state."

The general floor plans show the portions built at present, and a comparison with the larger plan at small scale, shows the portions designed for future construction. These consist of a lunch room east of the auditorium stage, an extension of classrooms south of the academic section and above the wing to the southwest. An industrial arts section, a natatorium and a girls' gymnasium are still to be erected as shown. A boiler plant has been erected at the east, served by the railroad track on the beach below.

The buildings illustrated were completed in 1923, at a cost of \$532,052. They contain 2,046,873 cubic feet, showing a unit cost rate of 26 cents per cubic foot. The school at the present, accommodates 1,000 pupils, establishing a cost price per pupil of \$532. The cost of heat-



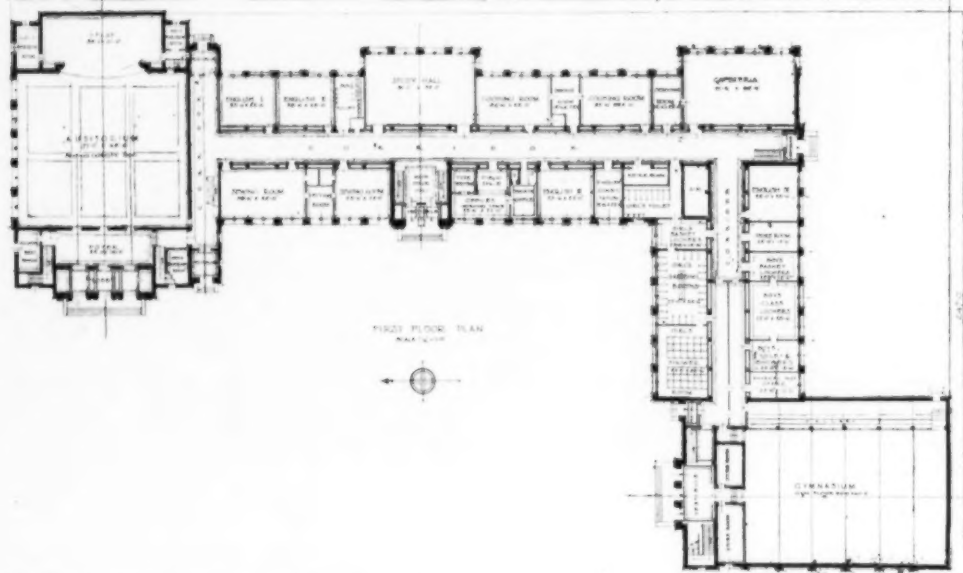
ACADEMIC PORTION WITH ENTRANCE TOWER, LINCOLN HIGH SCHOOL, MANITOWOC, WIS.
Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



GROUP PLAN FOR THE LINCOLN HIGH SCHOOL, MANITOWOC, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



LINCOLN HIGH SCHOOL, MANITOWOC, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



LINCOLN HIGH SCHOOL, MANITOWOC, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



LINCOLN HIGH SCHOOL, MANITOWOC, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.

ing and ventilation was \$60,063.45. Future extensions will carry the pupil capacity up to 1,500 and should bring the final cost per pupil to about \$500.

The tower marks the principal entrance for the entire school, and also encloses the central staircase. Two other fireproof staircases, enclosed with smokescreens, make the upper stories accessible and safe.

The main grouping of the building follows the architects' well established theory of giving the various high school departments their individual and characteristic expression on the exterior and of arranging the plan in such a manner as to provide the least possible interference with future expansion. The building has three floors. In addition to classrooms, there are an auditorium, two gymnasias, a

library, a cafeteria, and two study rooms. The large rooms, library, cafeteria and two study halls are located centrally, and close to stairways, and are also central as regards classroom distribution; all classrooms have either east or west light. The toilets for each sex, in each story, are conveniently placed. All floors are of fireproof construction. Linoleum is extensively used for floor finish.

A principle favored by the architects is to separate the auditorium and gymnasium departments giving them individual entrances for public use, as well as convenient inside connections with the academic section. The auditorium is at the north, and the gymnasium at the southwest portion of the group.

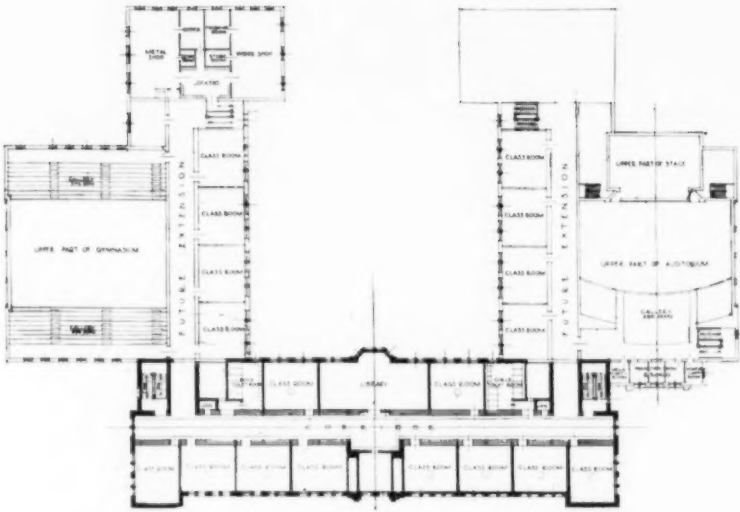
The natural ground slope toward the north permits the placing of the auditorium entrance and foyer below the rear portion of the auditorium, with the resulting gradual incline of the main floor from the stage up to the rear row of seats, with access to the front of the house through "tunnels" and to the rear by stairs from the foyer.

Flush front-type corridor lockers have been used.

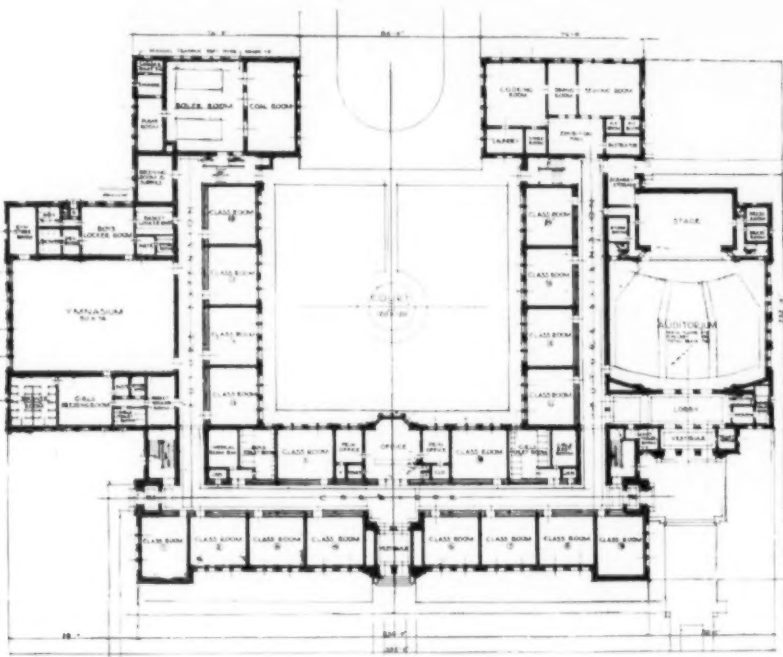
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AUDITORIUM (NO SEPARATE BALCONY) OF THE LINCOLN HIGH SCHOOL, MANITOWOC, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



SECOND FLOOR PLAN, ROOSEVELT JUNIOR HIGH SCHOOL, APPLETON, WIS.
Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



FIRST FLOOR PLAN, ROOSEVELT JUNIOR HIGH SCHOOL, APPLETON, WIS.
Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



ENTRANCE TOWER, ROOSEVELT JUNIOR HIGH SCHOOL, APPLETON, WIS.
Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



ROOSEVELT JUNIOR HIGH SCHOOL, APPLETON, WIS. Perkins, Fellows & Hamilton, Architects, Chicago, Ill.

TWO JUNIOR HIGH SCHOOLS AT APPLETON, WIS.

The Woodrow Wilson Junior High School is a two-story structure, designed in the Lombard Gothic style. It is a companion to the Roosevelt school and is practically the same in size and accommodations. The building has a large

tower, which serves as its main architectural feature.

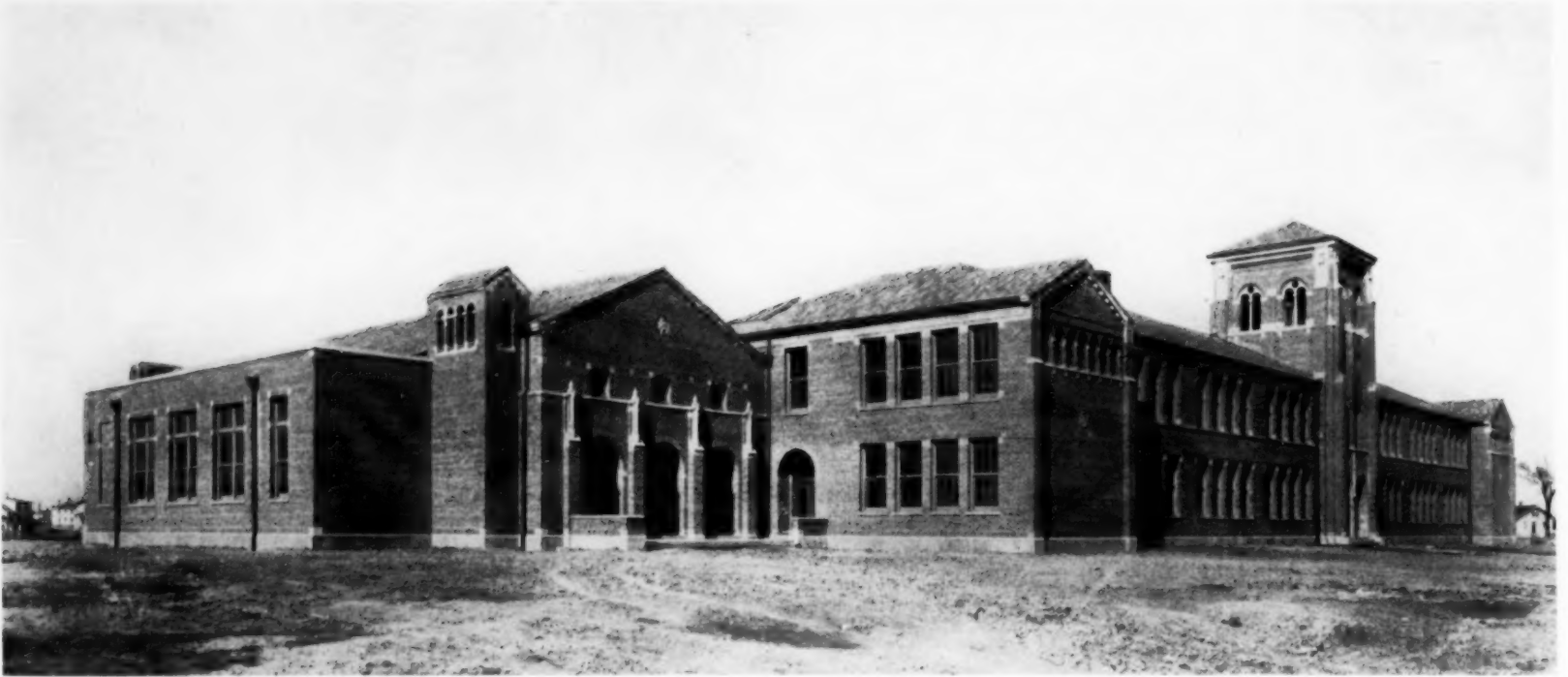
The building is built of brown matt-face brick in variegated colors, laid with rough-cut mortar joints of light buff. The roof is of green glazed tile.

In addition to a large number of classrooms,

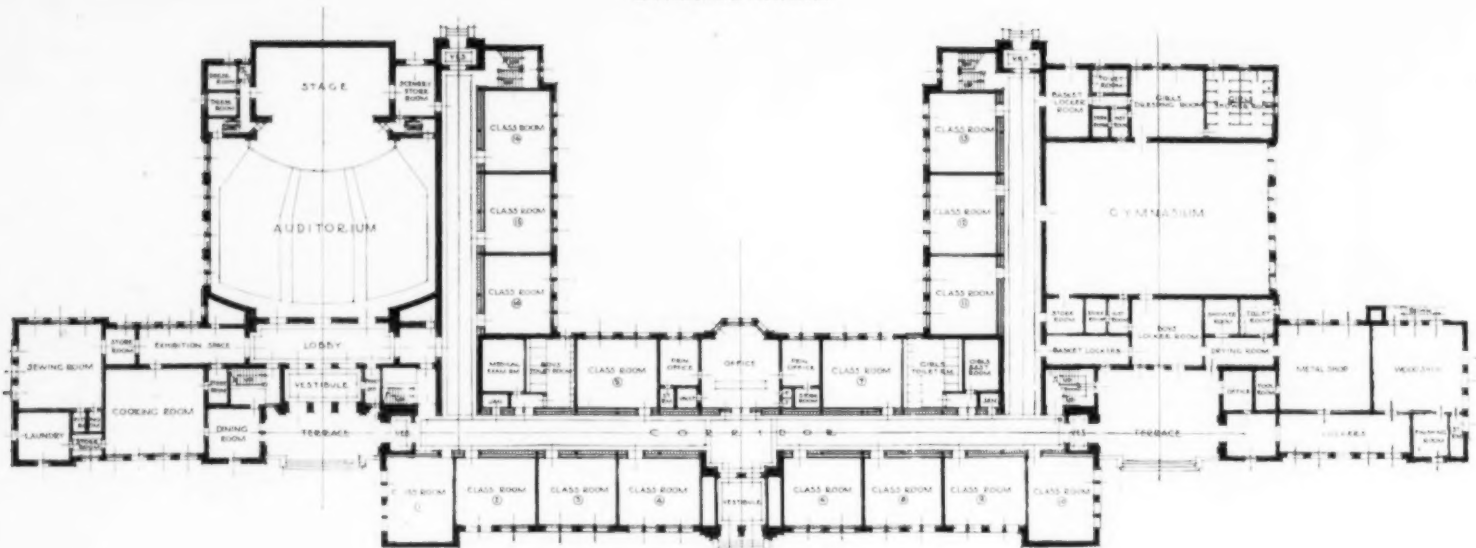
the building contains a gymnasium and an auditorium. It contains 995,635 cubic feet of floor space and has accommodations for 600 pupils.

The building was erected in 1924, at a cost of \$294,904, at a unit cost rate of 29.6 cents per

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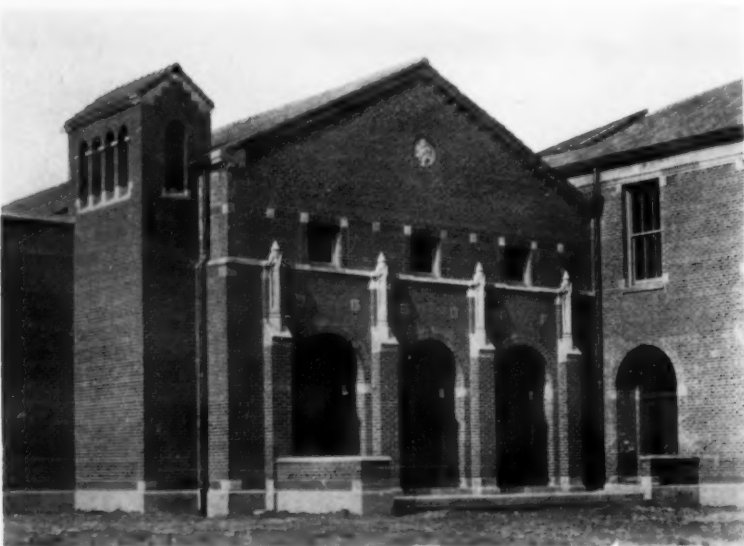


ENTRANCE DETAIL.



FIRST FLOOR PLAN.

WILSON JUNIOR HIGH SCHOOL, APPLETON, WIS.
Perkins, Fellows & Hamilton, Architects, Chicago, Ill.



AUDITORIUM, WILSON JUNIOR HIGH SCHOOL.

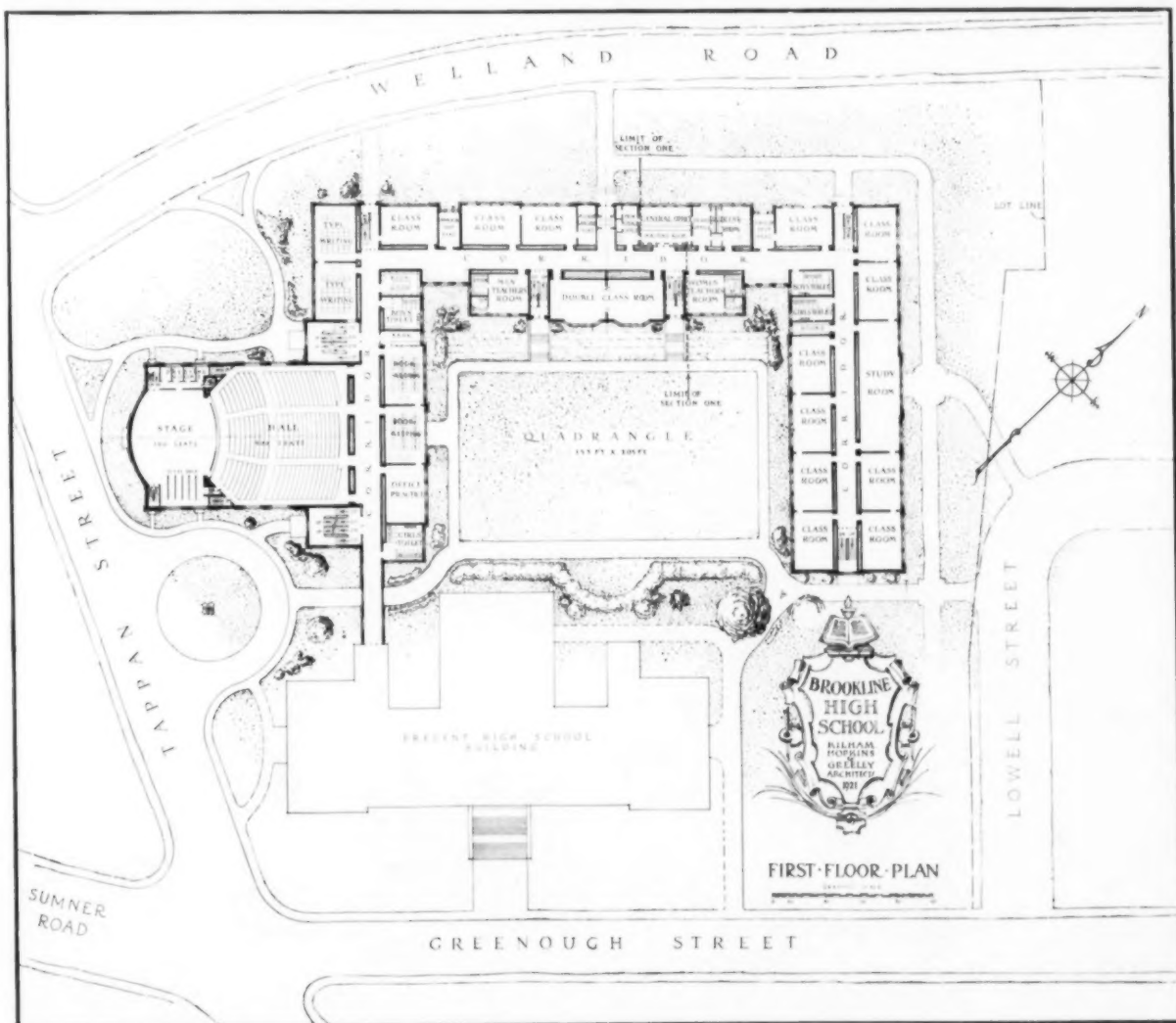


ENTRANCE TOWER.



ADMINISTRATION WING, BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.

Kilham, Hopkins & Greeley, Architects, Boston, Mass.

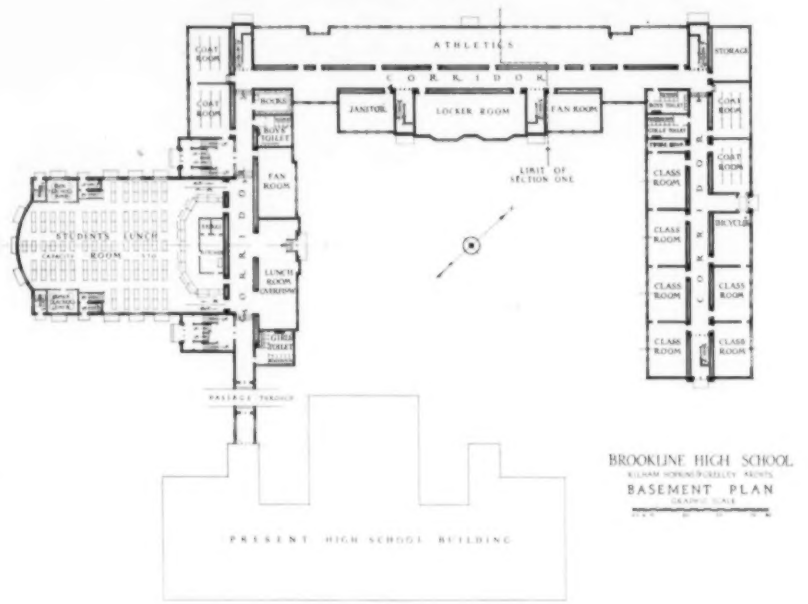
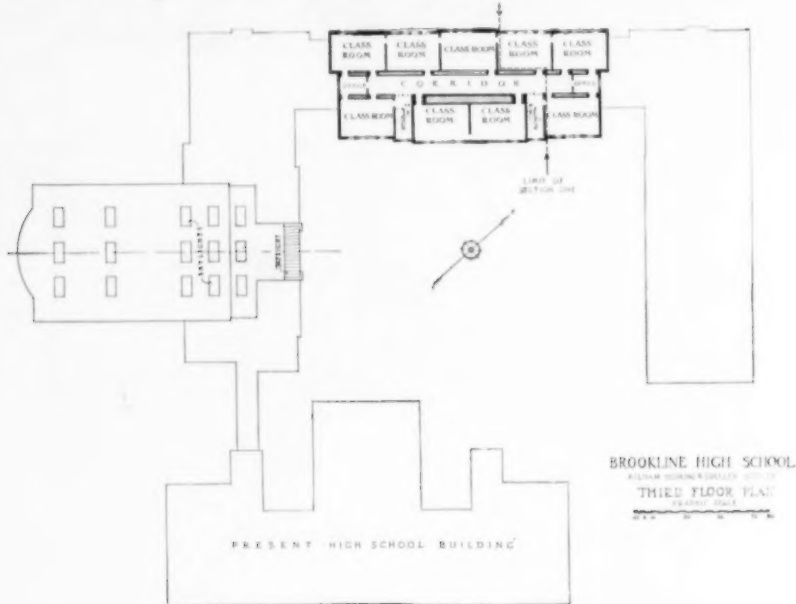




ALLEGORICAL PANELS AT END OF AUDITORIUM, BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.



ART GALLERY, CORRIDOR OF THE BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.



LUNCH ROOM, BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.

THE BROOKLINE HIGH SCHOOL ADDITION Designed by Messrs. Kilham, Hopkins and Greeley, Architects

The Brookline high school has been planned to make the best possible use of the site which it occupies, and at the same time to connect the new building with the old high school for the greatest economy in administration. The building, when entirely completed, will contain 57 classroom units, including the laboratories, a large library, an auditorium seating 1500 per-

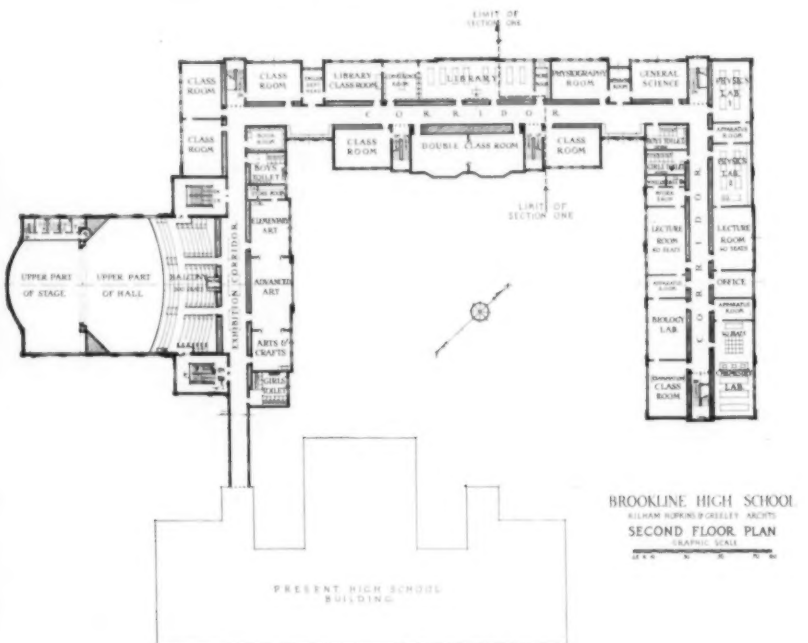
sons, and a lunchroom suitable for seating 570 children.

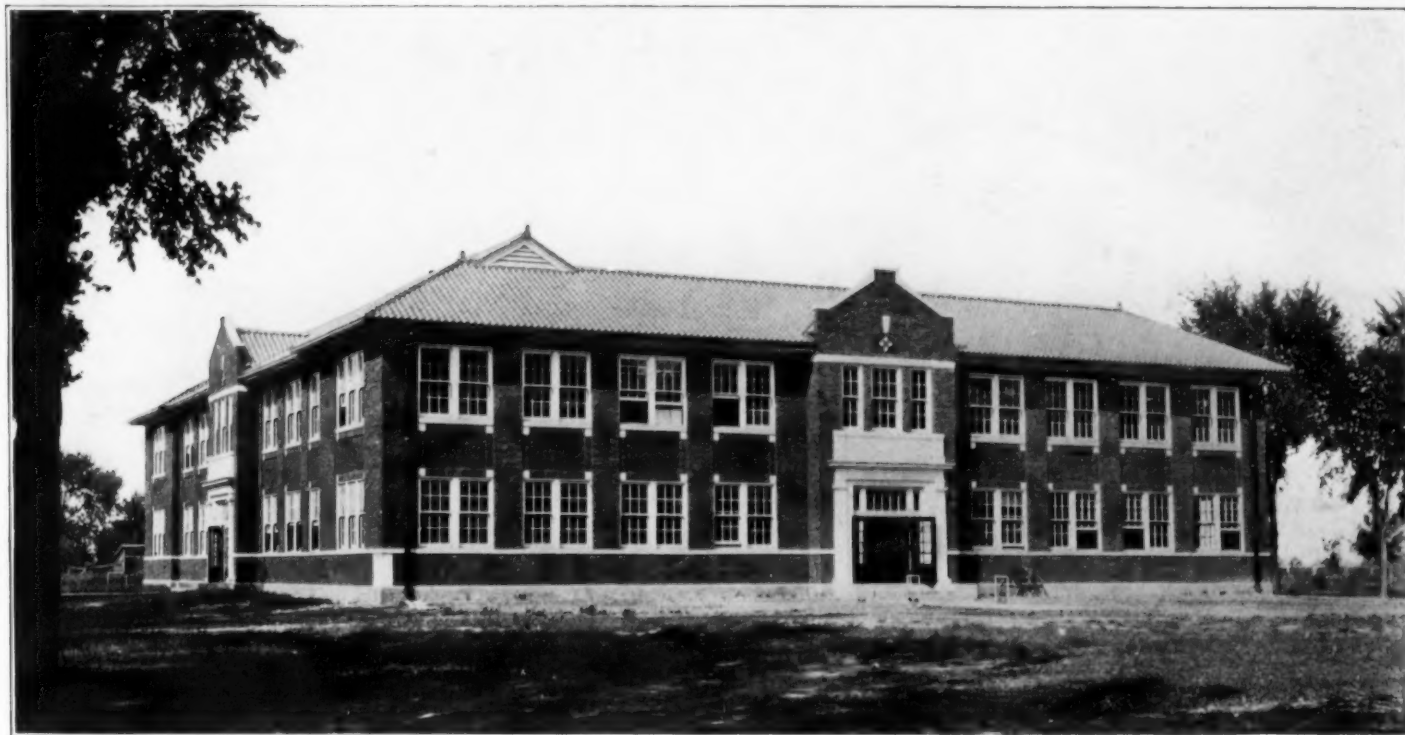
The building has been planned for 1500 home stations and will comfortably accommodate this number of children under the older type of organization. If the platoon plan should be adopted, 250 children additional can be accommodated.

One of the interesting features of the building is the exhibition corridor on the second floor

of the auditorium wing. This corridor is top-lighted, and is arranged for holding art exhibits. The corridor adjoins the art rooms, and it is planned to use it not only for showing school work, but also for loan exhibits.

The building is so arranged that the departments occupy classrooms in close proximity, and the head of each department has an office for his or her use where conferences with instructors and pupils may be had, and where administrative work may be done.

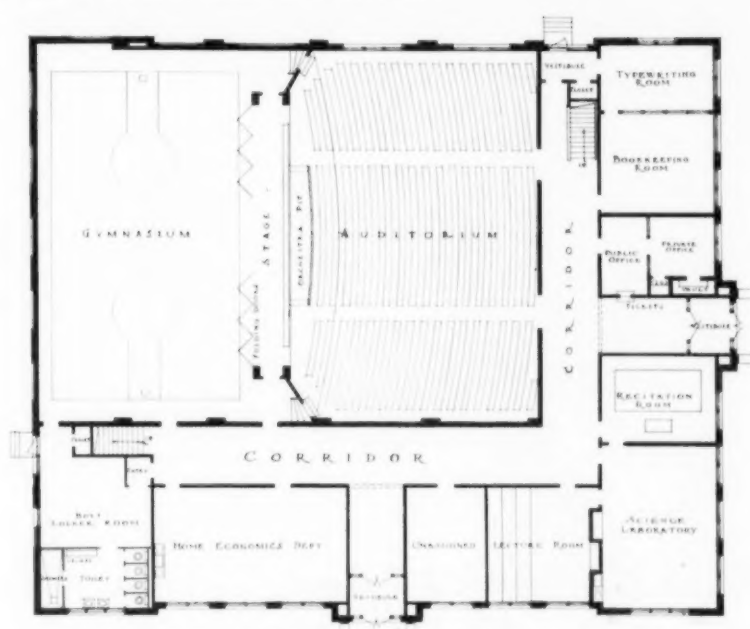




NEW HIGH SCHOOL BUILDING, MONROE CITY, MO. Bonsack & Pearce, Architects, St. Louis, Mo.



PLAN OF SECOND FLOOR.



PLAN OF GROUND FLOOR.

HIGH SCHOOL, MONROE CITY, MO. Bonsack & Pearce, Architects, St. Louis, Mo.

The building cost \$500,000 for the portion now completed. On the basis of the ordinary type of sessions, the cost per pupil will be \$533.00 and on the platoon plan, the cost will be \$40.00 per pupil.

THE MONROE CITY HIGH SCHOOL

The Monroe City high school at Monroe City, Mo., was erected in 1924, at a cost of \$60,000. In addition to fourteen classrooms, it contains a gymnasium, a library, manual training and domestic arts rooms.

The building was planned and erected under the supervision of Messrs. Bonsack & Pearce, Architects, St. Louis, Mo.

INTERESTING COUNTRY SCHOOL

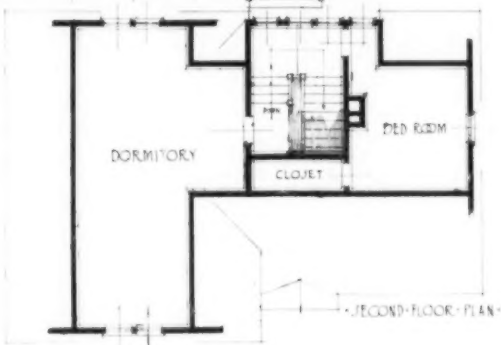
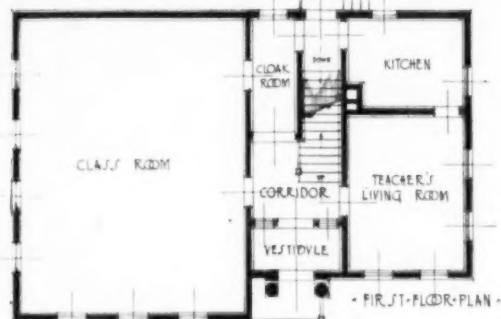
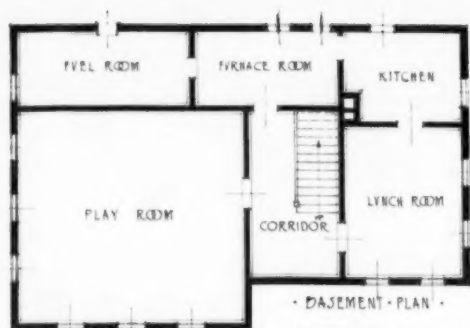
The one-room country school in Yellowstone County, Montana, illustrated above, is an interesting development in rural school architecture, based on local requirements. The building contains one classroom of standard size, and in addition includes an apartment for the teacher and for her assistant. In the basement there is a large playroom, a kitchen and a lunch room, and fuel and furnace rooms. The main floor contains a living room and kitchen of the teacher's apartment, and the attic contains one large room which serves for sleeping purposes, and a smaller bedroom.



THOMAS JEFFERSON SCHOOL, CLEVELAND, OHIO. W. B. McCornack, Architect.



COUNTRY SCHOOL AND TEACHERAGE IN YELLOWSTONE COUNTY (NEAR BILLINGS), MONT.
W. A. Dedrick, Architect.



FLOOR PLAN OF THE COUNTRY SCHOOL AND TEACHERAGE, YELLOWSTONE COUNTY, MONT.



HIGH SCHOOL, LOVELL, WYO. W. A. Dedrick, Architect.

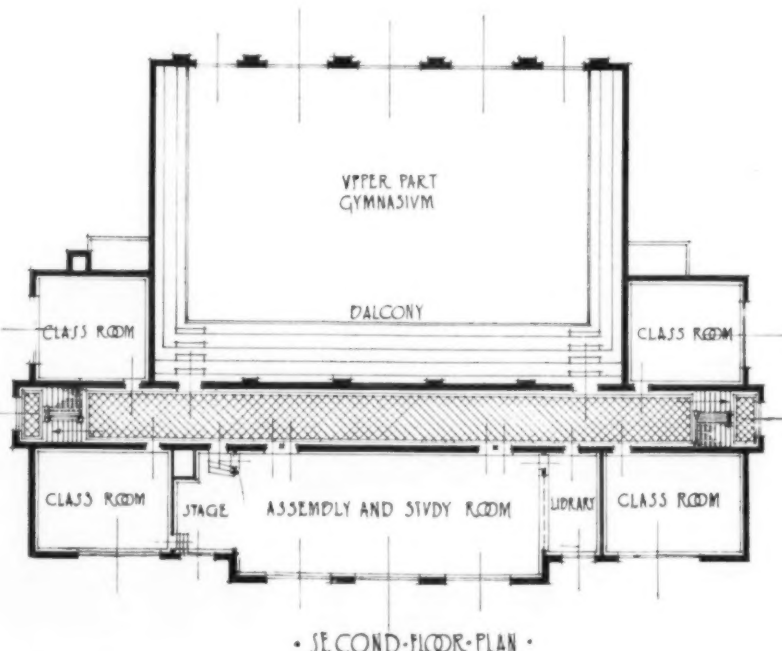
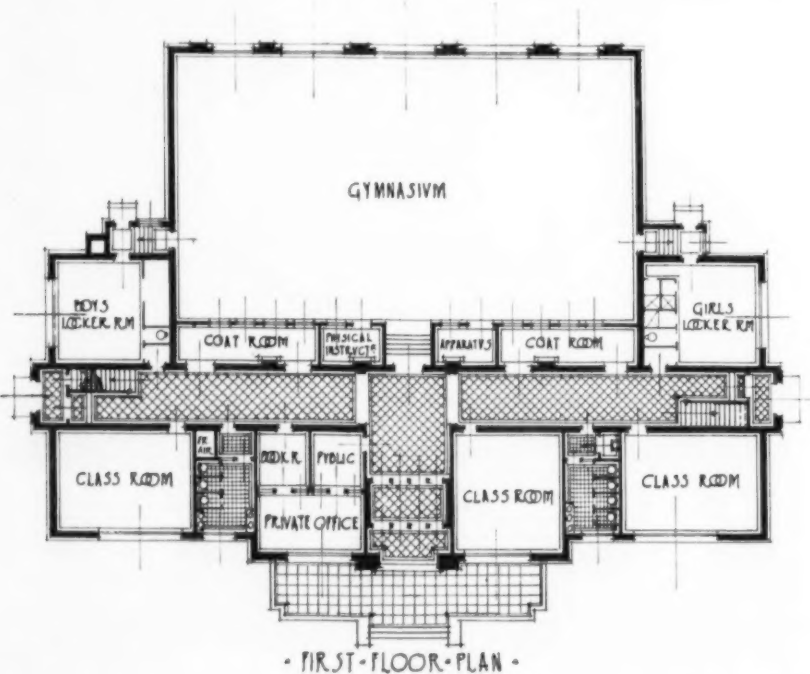
THE LOVELL HIGH SCHOOL

The high school at Lovell, Wyoming, serves a consolidated school district which requires a

building not only for elementary and secondary school purposes, but also for community purposes. The building is planned without a base-

ment and contains on the first floor, three classrooms, administrative rooms, locker and dressing rooms, toilets, and a large gymnasium which serves also as an assembly hall.

On the second floor there are four additional classrooms and an assembly and study hall. The latter has adjoining a small library. The building is constructed of brick and concrete, with steel fenestra and fireproof corridors. The plans were drawn by Mr. W. A. Dedrick, Architect.



FLOOR PLANS OF THE LOVELL HIGH SCHOOL, LOVELL, WYO. W. A. Dedrick, Architect.

Measuring the Ability of a Community to Finance a School Building Program

Ward G. Reeder, Ohio State University

Superintendents and boards of education are frequently in need of comparative data regarding the ability of their communities to finance school building programs. It is with the view in mind of supplying some of these comparative data for Ohio cities as well as to suggest a technique for making a study of the ability of a community to finance a building program that the financial section of the recently completed school building survey of Chillicothe, Ohio, is reproduced here. The Bureau of Educational Research of Ohio State University directed the survey; the writer was invited by the Bureau's staff to make the portion of the study on finances; the report follows:

Do the Ohio laws make provision whereby Chillicothe may finance a school building program, if she deems such a program necessary or desirable? Is Chillicothe able to finance a building program? These questions will be discussed in this paper. First, let us note whether or not the laws will permit a financing of a program, and if so, how large a program.

Legal Aspects

Limit on Amount of Bonded Indebtedness. The Ohio statutes stipulate that the total bonded indebtedness of a school district of the state shall not exceed six per cent of the assessed valuation of the district. On September 1, 1924, the date of making the survey, the bonded indebtedness of the schools of Chillicothe was \$206,500.

The tax duplicate of the Chillicothe school district for the present school year, 1924-25, is \$22,552,045. Thus, the statutory limit for bonded indebtedness on the present valuation is six per cent of \$22,552,045 or \$1,353,122.70. The present indebtedness, therefore, lacks \$1,146,622.70 of equalling the limit fixed by law. If it is necessary, therefore, properly to house her school children, Chillicothe can legally float a bond issue of \$1,146,622.70.

Due, however, to the difficulty of selling bond issues, except at high interest rates, when the six per cent limitation is equalled or approached, and due also to the high interest and sinking fund charges, it is always advisable to keep bonded indebtedness as much under the six per cent limitation as possible. Considering, therefore, the general financial welfare of the city it would be wise not to bond, unless it is absolutely necessary, the school district up to the six per cent limit fixed by law.

The laws also provide that all bond issues shall be of the serial type and that sufficient funds shall always be provided to care for the interest and the principal of the bonds. Let us suppose now that Chillicothe needs \$600,000¹ for a building program and that she wishes to sell a bond issue of that amount for a period of 25 years. Let us suppose further that the bonds can be sold so that the interest charges will be no more than five per cent. Under the Ohio serial bond plan, she would pay one-twenty-fifth of the principal at the end of the first year and also the interest on the \$600,000 at the estimated five per cent.² Her first payment for interest would thus be \$30,000 and the principal to be paid would be \$24,000; there would thus be a total of \$54,000 to be paid the first year. The amount to be paid would gradually decrease each year, due to the reduc-

tion of the interest charges caused by a reduction of the principal. Table I shows the amount that would need to be paid at the end of each of the 25 years on the above terms.

TABLE I. AMOUNT TO BE PAID AT THE END OF EACH YEAR ON A TWENTY-FIVE YEAR SERIAL BOND ISSUE OF \$600,000 AT A RATE OF INTEREST OF 5 PER CENT

Year	Total principal due	Amount of principal to be paid	Amount of interest to be paid	Total to be paid
1	\$600,000	\$24,000	\$30,000	\$54,000
2	576,000	24,000	28,800	52,800
3	552,000	24,000	27,600	51,600
4	528,000	24,000	26,400	50,400
5	504,000	24,000	25,200	49,200
6	480,000	24,000	24,000	48,000
7	456,000	24,000	22,800	46,800
8	432,000	24,000	21,600	45,600
9	408,000	24,000	20,400	44,400
10	384,000	24,000	19,200	43,200
11	360,000	24,000	18,000	42,000
12	336,000	24,000	16,800	40,800
13	312,000	24,000	15,600	39,600
14	288,000	24,000	14,400	38,400
15	264,000	24,000	13,200	37,200
16	240,000	24,000	12,000	36,000
17	216,000	24,000	10,800	34,800
18	192,000	24,000	9,600	33,600
19	168,000	24,000	8,400	32,400
20	144,000	24,000	7,200	31,200
21	120,000	24,000	6,000	30,000
22	96,000	24,000	4,800	28,800
23	72,000	24,000	3,600	27,600
24	48,000	24,000	2,400	26,400
25	24,000	24,000	1,200	25,200
Total to be paid.....	\$600,000	\$390,000	\$990,000	

On the present tax duplicate, \$22,552,045, of the school district, a tax of 2.39 mills on each dollar of property would be necessary to pay the interest and principal on the bond issue the first year. Due to the decrease in the principal each succeeding year and the attendant decrease in interest charges, the tax rate necessary to meet the annual interest and principal charges would decrease gradually each year.

There is another factor that would probably tend to decrease also the tax rate necessary to pay interest charges and to retire the bonds as they came due each year. This factor is the gradual increase in the tax duplicate of the school district. The tax duplicate of the district has been increasing annually at an average rate of 2.8 per cent during the last ten years. Thus, it is seen that, if the same rate of increase in wealth is continued, the tax rate could be made less than it could be if the tax duplicate remained stationary.³ A campaign to get all property on the tax duplicate at its true value in money, as the Ohio laws require, would unquestionably equalize taxing burdens and would also greatly increase the duplicate and thus make possible a lower tax rate.

Table II shows the annual increase in the tax duplicate from 1914 to 1923.

TABLE II. TAX DUPLICATE OF CHILICOTHE, OHIO, SCHOOL DISTRICT EACH YEAR FROM 1914 TO 1923¹

Year	Duplicate	Change from preceding year	Amount of change	Percent- age of change
1914	\$17,691,871			
1915	17,518,360	decrease	\$ 173,510	0.2
1916	17,977,920	increase	459,560	2.6
1917	19,351,140	increase	1,373,220	7.5
1918	20,454,155	increase	1,103,015	5.7
1919	21,062,455	increase	598,300	2.9
1920	21,984,215	increase	921,760	4.4
1921	22,581,825	increase	597,610	2.7
1922	22,310,100	decrease	271,725	1.2
1923	22,552,045	increase	241,945	1.0
Average increase			\$ 540,019	2.8

It will be necessary, of course, if the funds are to be provided for a building program, for the citizens to authorize by their votes the bond issue asked for and to provide the necessary levies to care for it. Since the fifteen mill limitation is already exceeded, it will be necessary for the citizens to vote the levy outside of the fifteen mill limitation fixed by law. To summarize, it may be said that the laws will permit a financing of the program, if the voters desire to authorize the levies. The final deci-

sion, therefore, on whether or not Chillicothe is to engage in a school building program rests with the voters.

Ability to Support a Building Program

The need for new school buildings, sites, and equipment may be very urgent, yet a city may not be able to provide them, except perhaps, through considerable effort and even sacrifice. Ability to afford something needed or desired must always be considered in public finance as well as in personal finance. The remainder of this report, therefore, will be devoted to a discussion of the ability of the city under view to support a building program.

But, unfortunately there is no way of determining, except on basis of opinion, whether or not a community is able to provide funds for a given project. All that can be done is to compare the financial standing and practices of the community with the same features in somewhat similar communities. These comparisons, although they do not establish an optimum practice, do serve the purpose of making the community more aware of its own standing and practices than it could be without them. In the paragraphs that follow, an attempt is made to compare certain pertinent aspects of Chillicothe's school finances with similar aspects of the school finances of other Ohio cities of approximately the same population.

According to the federal census of 1920, Chillicothe had a population of 15,831. In Ohio, the same year, there were 21 other cities with approximately the same population; that is, between 10,000 and 20,000. These cities, having, it is presumed, somewhat similar educational problems, will be used in this report for comparative purposes. Following are the cities together with their 1920 populations:

City	1920 Population	City	1920 Population
Barberton	18,811	Ironton	14,007
Bellaire	15,061	Kenmore	12,683
Bucyrus	10,425	Lancaster	14,706
Cambridge	13,104	Marietta	15,140
Chillicothe	15,831	Martins Ferry	11,634
Cleveland Heights	15,236	Massillon	17,428
Coshocton	10,847	New Philadelphia	10,718
Cuyahoga Falls	10,200	Niles	13,080
East Youngstown	11,237	Piqua	10,305
Findlay	17,021	Salem	14,375
Freemont	12,468	Tiffin	14,375

A personal letter was sent to the superintendent of schools of each of the above-mentioned cities requesting certain financial data. Twenty of the 22 cities furnished data before the time of writing this report and are included in the tables that follow.³

A. Wealth

Chillicothe has \$1,420 of wealth per inhabitant. This is \$72.50 less wealth per inhabitant than the typical Ohio city of her size has. Chillicothe ranks fifteenth in the group of twenty cities on which wealth data were reported. These data are shown in Table III.

In interpreting the data of Table III, it should be noted that the data on wealth are those on wealth reported for *taxation*. We have no way of knowing the amount of *real wealth* in the various cities. It is probably safe to say, though, that some cities are getting a much larger percentage of their wealth on the tax duplicate at true value than are other cities. It is the judgment of Mr. Cahill, auditor of Ross County, the county in which Chillicothe is located, that property in Chillicothe is assessed at about eighty per cent of its true value; however, Mr. Cahill rightly admits that this estimate may be either much too low or too high.

³The writer desires here to acknowledge the splendid cooperation of the superintendents of schools of these cities.

(Continued on Page 138)

¹This amount is taken only for illustrative purposes. The board of education has not yet determined the amount that will be needed to finance the program, but it will probably need and ask for approximately \$600,000.

²The laws provide that the principal and interest may be paid either semi-annually or annually.

³Taxes for the present school year, 1924-25, are paid on the 1923 duplicate.



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WM. GEO. BRUCE }
WM. C. BRUCE } Editors

EDITORIAL

THE SCOPE AND FUNCTION OF SCHOOL BOARDS

The real progress made in the field of school administration during the past quarter of a century must be found in a better adjustment of the relation between boards of education and the professional executives. The old time school board, with its ponderous membership, its brief tenure of office, its ward representation, and power to select teachers and textbooks, was after all not as serviceable an institution as could be devised.

The reduction in school board membership, the change from ward to general representation, and the lengthening of tenure of office have proven innovations in the direction of greater efficiency. The experience at command has established that fact.

But, the prerogatives which the old time school board held in the control of teacher appointments, and the choosing of textbooks constituted after all the real weakness of school administrative effort. They proved an invasion into the professional field, for which the individual board member was neither trained nor fitted.

The proposal that there be a separation of the business and professional in school administrative effort was not accepted with equanimity. Members saw herein an infraction upon their prerogatives and the centralization of power in the hands of the superintendent.

But, time had demonstrated that the delegation of the purely professional services to those best equipped to perform them has not impaired the prestige of the board of education or lessened its control of the school system. To clothe the office of superintendent with the power of initiative in professional matters, such as the employment of teachers, the preparation of courses of study, and the adoption of textbooks, leaving the approval in the hands of the board of education, has unquestionably led to school administrative efficiency.

It has also lightened the burden of school board members and enabled more intensive application to the financial and general policy making routine of school government. The legislative and judicial powers of the board have not been impaired in a surrender of the things that are purely professional. The over-zealous school board member may rise and say: "If the superintendent appoints all the teachers, selects all the textbooks, and makes the course of studies, what is there left for the school board to do?"

The question is well answered by the school survey report issued at Portland, Oregon, which says: "This leaves the board free alike from the strong personal pulls and influences and from the petty details of school administration, with time to devote to the larger problems of its work. These relate to the selection of its ex-

pert advisors, upon which much time and care should be spent; the larger problems of finance, present and future; the selection of school sites, always with future needs and growth in mind; the approval of building plans; the determination of the budget of expenses; the final decision as to proposed expansion and enlargements of the educational system; the prevention of unwise legislation by the city or by the legislature; and the representation of the needs and policies of the school system before the people of the city and of the state. These larger needs are far more important, but are almost sure to be neglected if a board of school directors attempts to manage too minutely the details of school administration."

A restatement at this time of the accepted principles in school administration would seem superfluous. But, even with the tremendous advance made here and there, situations come to the surface where an officious school board president and a yielding superintendent have reestablished the old order of things. The school superintendent knows the exact relations that must exist between himself and his board in order to give proper momentum and direction to the school system. Upon these he must insist if he is not to sink to the level of a rubber stamp.

It is quite natural that there are members on boards of education who, in a meddlesome spirit, seek to invade the prerogatives of the professional factors. In instances of this kind, the superintendent must be clear as to the real function of his office. He must be self-assertive and self-reliant in holding to the accepted fundamentals of modern school administrative service.

The duties which come legitimately within the province of a properly constituted board of education, ought to keep that body sufficiently busy to make all excursions into the professional field undesirable. But, if this were not so, it still remains that the purely educational labors must be left to those specially fitted to perform them.

THE CRY FOR CUTTING SCHOOLHOUSE COSTS

Where the margin between income and outlay, as applied to school finances, is a narrow one, or where that margin is expressed in deficits and at the same time confronted with a stubborn tax limit, the cry for economy is no doubt justified. The cost of contemplated school buildings here must come down, useless ornamentation must be eliminated, and the structures must be brought to the irreducible minimum in simplicity and detail.

Where this cry is loudest, it is usually found that an ambitious mayor or alderman, together with an over-zealous editor, are exciting the public mind over economies which cannot be effected and over dangers which do not exist. There are communities in the United States, many of them, where school palaces have been erected and where the charge of extravagance might apply. But, in cases of this kind, it is also found that the community could afford the expenditure made and that the school structure, usually a magnificent high school, has become the pride of the people who do not begrudge its cost.

The average community is not guilty of extravagance in schoolhouse construction. The modern art of school architecture embodies dignity of style and utility in a high degree, but it does not countenance extravagance. Where a plan has been carefully worked out, and meets with the needs of the community, the question of cost cutting becomes almost a puzzling one.

In an eastern city, estimates were advanced a year ago that a new junior high school would involve a cost of one million dollars. When the

architects and school authorities got down to business, they found that a suitable building could be constructed for something like a half million dollars. The politicians who had cried economy a year ago at once claimed the credit of having saved the community a lot of money.

The facts in this case, as in many other cases, are that no extravagance was intended in the first place and that there may be a wide difference between an offhand estimate and actual cost, and that school authorities, as a rule, accept all the economies that the situation offers.

It is true that a schoolhouse is not a monument but a workshop, but if a community desires to express its local pride and educational aspirations in a splendid school structure, that privilege is all its own. It is merely here a question what the community wants, and that it receives what it pays for.

When it comes to the question of school building costs, there is a limit as to plainness of structures. Such plainness may be carried too far. While the factory style may be adopted, it still remains that a schoolhouse is an educational structure and not a factory building, and that the elements of safety, convenience, and beauty cannot be ignored. Where cost cuts invade these elements, the efficiency and economy side of a school building suffers. Hideous structures are the result.

It is after all within the province of the community itself to determine whether it shall go to the extreme in simplicity of school housing, or whether it shall rear a structure that shall be graceful in outline and ample in appointments, and thus express the educational pride of the people.

LAWMAKING AND SCHOOL ADMINISTRATION

It is becoming evident that there is a strongly growing tendency on the part of state legislatures to concern themselves with school administrative affairs, and particularly to say what shall or shall not be taught in the schools. While the American system of popular education is decentralized in that it is not under national control, and that even under state direction a certain latitude is given to the several units of school government, the state lawmakers have kept an eye on the courses of study and have dealt in restrictions as well as in compulsory studies. The prescribed subjects have been increased in the past twenty years by six per cent.

The much discussed evolution controversy in Tennessee has brought out the fact that two other states, Oklahoma and Florida, are recorded against the study of the subject in the common schools. But, it has also called attention to the many other subjects which have come under legislative deliberation and direction.

A writer on the subject, J. K. Flanders, points out that "In Oregon no textbook 'shall be used' which 'speaks slightly of the founders of the Republic or of the men who preserved the Union, or which belittles or undervalues their work.' In Mississippi 'no history in relation to the late Civil War between the States shall be used in the schools of this State unless it be fair and impartial.' In Texas a textbook on the history of the United States must be adopted in which 'the construction placed upon the Federal Constitution by the fathers of the Confederacy shall be fairly represented.' No textbook may be used in Wisconsin which 'falsifies the facts regarding the War of Independence or the War of 1812, or which defames our nation's founders, or misrepresents the ideals and causes for which they struggled and sacrificed, or which contains propaganda favorable to any foreign Government.'"

Ohio compels the study of thrift and Nebraska annual school exhibits, South Dakota requires an hour's teaching of patriotism each week, Delaware and New Jersey order Bible readings, Wisconsin directs the manner of removing objectionable textbooks, etc., etc.

Mr. Flanders says that "Among the items showing the largest increase during the twenty-year interval, meaning by increase the additional number of States in which a given item is now required, are the following: 1, Flag display; 2, days of special observance; 3, fire drill; 4, all instruction in English; 5, physical education; 6, physical examination; 7, fire prevention; 8, agriculture; 9, Constitution of the United States; 10, citizenship; 11, history of the State; 12, patriotism.

Observance of these laws is usually compelled through the medium of state support for local school units. Any violation of law or laws forfeits that support. Thus, in some states the community is compelled to comply with many conditions, the failure in one involving a forfeiture of an entire share of the state fund.

No doubt some of these laws are beneficent in character and serve their purpose well. Others, however, were formed and enacted in the rush of a momentary situation and have no particular value at this time. At any rate, many of the mandatory provisions affecting the administration of the schools are superfluous in that they were observed long before legislative bodies concerned themselves with them.

The theory upon which the American system of popular education is founded contemplates the widest possible latitude for community initiative and accomplishment. It has stimulated local pride in educational effort and has given expression to the finer aspirations of the citizenship. The competitive attitude between community and community in matters educational has made for efficiency and excellence.

The tendency toward uniformity through state direction should not go so far as to restrict individuality and curb the expression of the better impulses and ambitions of the community in school administration.

THE IRRITABLE BOARD OF EDUCATION MEMBER

The present year has seen some remarkable cases of irritability on the part of boards of education. Members who found themselves in the minority on important questions resigned because they became peeved over the action of a majority. Instances are on record where an entire board resigned because the taxpayers voted down a new school project, or otherwise manifested disagreement with school administration policies.

There may arise situations in board of education deliberations which are most trying. Members take a definite position on policies and departures, advocate them earnestly and sincerely, and then meet with opposition which sometimes is unfairly advanced. Resentment then comes to the surface.

It follows, nevertheless, that men serving on deliberative bodies must submit to the majority rule. Again, they are bound by the popular will. The premier who does not secure the support of the legislative body relinquishes the reigns of government and turns to the country for support. Procedure of this kind applies to old world governments and not to this country.

Here we make our fight in the open and take our medicine if defeated. Members of boards of education may at times be placed in a most embarrassing position. While they may understand the needs of the school, the public may be indifferent or even antagonistic to these needs. At times great patience, tact and skill

must be employed in winning the public to a righteous cause.

This, too, applies to a minority in a school board that happens to be right and is confronted by a majority that is clearly in the wrong. Sometimes the minority is wrong without quite realizing that fact, but whoever may be right it only follows that under our form of government the majority dictum must prevail.

It therefore also follows that those sitting in deliberative bodies, be it on a board of education or in the highest legislative body of the nation, must exercise poise and patience, and submit gracefully to the conclusions reached whether they believe them right or wrong.

It has always seemed to us that among the several deliberative bodies serving in a governmental capacity the modern board of education ought to serve as the model.

LITIGATION IN SCHOOL ADMINISTRATIVE AFFAIRS

An examination of the entanglements and misunderstandings which find their way into the courts of the land for adjudication reveals the fact that the school interests receive their share of attention. Between five and six hundred cases involving the rights and prerogatives of school authorities are decided annually in the courts of the several states.

In view of the fact that school laws have been established and have been administered in the several states for many years, it would seem that the authority of those in charge of school interests had been sufficiently well defined to leave no doubt upon them. But, frequently the laws with their amendments are so complicated that the layman must resort to the courts to define them.

The court records reveal the fact that many cases arise out of the establishment of school funds, the acquirement of school sites, and the doubt which enters school administrative authority. Many more, however, arise in the creation, alteration, and dissolution of school districts. The introduction in the rural communities of consolidated school districts has led to considerable confusion. The area to be covered, the contentions of the individual taxpayers and the attendant obstacles have given rise to wide differences of opinion.

School officials are not always certain as to their own authority, more specially where the acts of one board of education extend over into the life of the next. Unlawful acts are sometimes committed here as the result of haste or undue prejudice. Contracts and liabilities are entered into, which may or may not be binding upon successive bodies or the community as a whole.

By far the largest number of school cases carried into the courts deal with questions of debt, securities, and taxation affecting school districts. The length to which school authori-

ties may go in increasing the indebtedness of a school district in the light of existing obligations and the tax ability of the community, is not always defined in the law with a clearness that would obviate misunderstanding. At any rate, the courts here are frequently called upon to disentangle snarls and define the law.

The relations between school authorities and the professional factors oddly lead to considerable litigation. The employment of superintendents, principals, and teachers is not always effected with prescribed regularity. Somebody discovers this fact and creates trouble. Here, too, prejudice frequently comes into play and prompts the disgruntled patron to carry his vengeance into the courts.

Among the most annoying cases are those which bring into question the disciplinary powers of the board of education and its executive officers. The troublesome pupil, and the misguided parent, are found in every community. The latter seeks to impair the prestige of the school and wreak vengeance upon a cruel (?) teacher or school executive.

The rule enforced by boards of education against the married woman teacher has in recent years led to some unique court cases. A teacher is married in secret in order to retain her name on the payroll—and then upon discovery is dismissed and fights for reinstatement. Usually in cases of this kind the courts decide in favor of the school authorities. Ambiguous school board rules, however, are frequently at fault.

A study of the volume of school cases adjudicated by the courts each year leads to the belief that while men will always place their own construction upon questions of right and wrong, the laws dealing with school administration are by no means always clear or complete. The lawmakers of the land still have the task before them to clarify the laws now on the statute books of the several states, rather than to complicate them by mystifying amendments and amplifications.

MOTION TO LAY-ON-THE-TABLE

In parliamentary practice, the rules which guide the same contemplate expedition both in deliberation and in final action. They further contemplate a complete understanding of the questions at issue, and their adjudication along lines of majority sentiment.

In the sense that the expedient and acceptable be adopted, likewise the inexpedient and undesirable are to be eliminated. A motion to lay-on-the-table provides for the disposition of the immaterial and inexpedient.

A motion to lay-on-the-table frequently, however, requires the same consideration as to relative value as does an affirmative action. True, where the merits or demerits are quite obvious, a ready disposition is warranted. But, impatience and irritability sometimes lead to a hasty disposition of a question via the lay-on-the-table route.

The patience of school executives is often sorely tried by unreasonable petitions and demands on the part of the public. These must be disposed of in the light of reason and fairness, and a firm denial of them is frequently the only solution to be found.

A fracas between the school board and the general public, or a neighborhood delegation, has found its origin in hasty action, namely, a readiness to lay-on-the-table before a complete knowledge of the situation was heard.

Thus, while parliamentary practice has instituted rules which dispose of the immaterial and irrelevant, it must rely upon that judgment which is deliberately formed and wisely reached. A motion to defer action, or to bury a measure or petition, must have behind it the same calm reasoning that goes with an affirmative action.



THE PUBLIC EXCLUDED. —Chicago Tribune.

Business Administration of High School Activities in Des Moines

What happens to the income from athletics? Does your school make a profit from entertainments? Is the lunch room self-supporting? Does the principal know? Does the superintendent know? Perhaps they do, if there is a system of bookkeeping and record keeping to tell them. But ask the principal or superintendent how much his own automobile costs him per year. In how many cases will you receive a definite answer? He has kept no record; he has filed away receipts and memoranda in a haphazard manner and can only guess at the cost of keeping his car. The average man is not methodical by nature.

Countless systems have been devised and promoted for standardizing and simplifying business practice. This movement is reacting upon the business of the school. The school administrator can no longer afford to concern himself merely with organizing curricula and supervising classroom activities, though these duties stand first and foremost. The modern school administrator must be a good business man, this for three reasons: first, that he may derive the greatest possible utility from public funds appropriated to the business of education; second, that the pupils of his school may receive the wholesome example of system, accuracy, and honesty; and third, that he may command respect and prestige among business men.

In the modern school system the large matters of business administration—building upkeep, teachers' salaries, etc.—are handled by the school board organization. Minor matters—athletics, clubs, lunchrooms, etc.—are left to the ingenuity of the principal or superintendent. Now, here, in these smaller matters lies the administrator's opportunity to prove himself a business man. Each of these small activities calls for a simple and adequate system of record and accounting.

Supt. J. W. Studebaker of the Des Moines (Iowa) public schools has, with the help of his principals and business instructors, during the past five years, worked out complete methods of procedure for the guidance of principals and faculty advisors in charge of high school activities. As a result, record keeping and accounting is not, in the Des Moines schools, a nightmare to principals and advisors and the constant cause of complaint we all know it to be in many small cities.

The superintendent's manual gives complete and detailed instructions for principals, high school treasurers, athletic managers, managers of school publications, managers of lunch-

rooms, faculty advisors of clubs and organizations, and teachers in charge of selling supplies and renting locker keys and locks.

Duties of Principals

While the principal's chief duties are concerned with problems of fitting courses of study to the peculiar needs of his school and supervising the classroom activities of teachers, he is, ex officio, general manager of all minor business matters in his school. Left to his own resources, he must devote to these matters time and attention that belong to more important affairs or permit small business matters to be cared for in a haphazard manner.

A system such as that worked out for the Des Moines schools relieves the principal of all details of recording and accounting. The manual gives directions for organizing the systems, which once organized, functions with little of his personal attention.

Each high school has a member of the faculty to act as school treasurer. She has charge of all funds of the school and is bonded in proportion to her responsibility.

Teacher advisors are appointed for athletics, ticket sales, clubs, organizations, and classes. These advisors have supervision of all business conducted, records kept, and reports made and sign all checks for payment or transfer of funds. They organize and direct the student help needed in their departments.

The selling of books and supplies to students is a source of much grief to school officials. If supplies sold are purchased by the school board organization, as they are in Des Moines, the problem is simplified for the principal. The manual of instructions provides for a stock record, showing an itemized list of supplies on hand at the beginning of the year together with a record of all goods received and sold or used by the high school office, and remittances made to the secretary and business manager of the school district. Money from the sale of supplies is deposited with the high school treasurer daily and the treasurer makes remittance to the school district secretary and business manager at the close of each semester.

Arrangements are made in each activity for closing books and turning in reports for audit. The principal appoints local committees consisting of the high school treasurer, a member of the business department, and the faculty advisor of the particular club or organization interested, to audit the accounts when new officers are elected and at the close of the school year in June. The same applies to auditing

the accounts of athletics and lunchrooms.

The treasurer is responsible for the safe keeping of all school funds. She receives deposits of school moneys and issues duplicate receipts for them. All payments for any activity are made by duplicate, numbered checks, signed by the principal or faculty advisor of an activity and countersigned by the school treasurer. Detailed records of individual activities are kept by the sub-treasurer assigned to that activity.

Treasurer's records. The treasurer keeps a separate account with each fund entrusted to her, using a uniform columnar cash journal. The column headings of the cash journal are as follows: (1) Cash—to show all cash received and deposited; (2) Bank—to show equivalent of cash received, and all disbursements; (3) Clubs and Organizations—a combined record of all clubs, classes, and other organization accounts; (4) Miscellaneous—to carry all temporary funds such as welfare contributions, Thanksgiving offerings, etc., and accounts with only occasional entries such as books and fines, savings accounts, etc.; (5) Car checks—showing purchases and daily sales; (6) Supplies sold—showing daily deposits of supply clerk and remittances made to school board secretary; (7) Lunchroom—with daily receipts and disbursements; (8) Entertainments—with receipts and expenses of all paid entertainments; (9) General fund—with receipts from the profit on entertainments and other funds available for general high school purposes and disbursements as directed by principal or finance committee; (10) School paper—daily receipts and disbursements; (11) Locker deposits—receipts from all key or lock deposits and refunds at the close of the year; (12) Such other headings as may be needed to care for peculiar local conditions.

All combined or mixed account columns such as clubs and organizations, entertainments, general fund, and miscellaneous are posted or abstracted in detail on pages reserved and indexed in the back of the cash book so that the balance of each particular fund is available at all times.

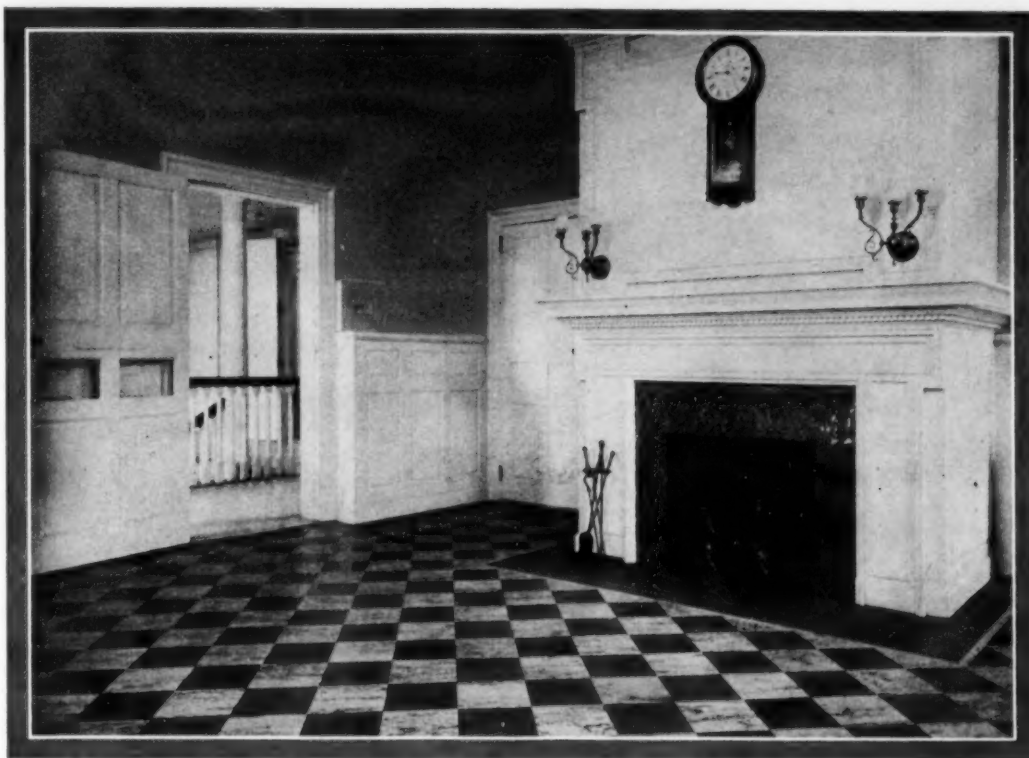
Thus the treasurer becomes the head bookkeeper for the school. Her books answer the questions asked at the beginning of this article, questions which interest the superintendent, the principal, the students, and the public. If students from the business department can be employed to keep these records under the supervision of the treasurer and to perform like services in each sub-department of the school's business organization, one can readily see the possibilities for splendid training in business procedure they will receive. Such practice, be-

(Continued on Page 70)

The image displays four distinct forms used for reporting athletic department activities. Each form is designed with specific sections for data entry and calculation.

- Generating Statement:** This form tracks receipts and disbursements for various sports. It includes sections for 'Receipts' (listing items like tickets, donations, and equipment) and 'Disbursements' (listing expenses like travel, food, and supplies). It also provides space for a 'Total Receipts' and 'Total Disbursements' calculation, as well as a 'Net Gain or Loss'.
- Annual Business Statement:** This form provides a detailed breakdown of receipts and disbursements for all athletic activities over a specific period. It lists various categories such as 'Football', 'Basketball', 'Baseball', 'Soccer', 'Tennis', 'Golf', 'Swimming', 'Track', 'Fencing', 'Boxing', 'Judo', 'Karate', 'Martial Arts', 'Other Sports', and 'General'. It includes a 'Total Receipts' and 'Total Disbursements' section, along with a 'Net Gain or Loss' calculation.
- Annual Financial Statement:** This form tracks the financial aspects of the athletic department. It includes sections for 'Assets' (listing items like cash, investments, and equipment) and 'Liabilities' (listing items like accounts payable, loans, and other obligations). It also provides a 'Total Assets' and 'Total Liabilities' calculation, as well as a 'Net Gain or Loss'.
- Ticket Sales Report:** This form is used to report the results of ticket sales. It includes a table for recording ticket sales by date, with columns for 'Date', 'Number of tickets sold', and 'Total sales'. It also includes a section for 'Total sales' and a 'Net Gain or Loss' calculation.

FORMS FOR ATHLETIC DEPARTMENT REPORTS (ORIGINALS MEASURE 8" BY 11" EXCEPT TICKET SALES REPORT).



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Beardslee Chandelier Mfg. Co.
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(Continued From Page 70)

To guard against haphazard and unrecorded purchases, all purchases must be made with the use of triplicate, requisition blanks issued by the faculty manager with the approval of the principal and all payments must be made by means of duplicate checks signed by the athletic manager and countersigned by the high school treasurer. In all home contests, checks should be made payable direct to the individual or firm. In the case of contests away from home, a check for the approximate amount of the entire trip's expenses is made payable to the school official in charge. He cashes the check, and pays cash for the expenses of the trip. Each firm or individual thus receiving payment in cash receipts for it on a triplicate athletic manager's report (form 182).

Sale of tickets. Ticket sales are under the direct supervision of the athletic manager or other school official appointed by the principal. Each individual selling tickets makes a triplicate ticket sale report (form 176) showing the number of tickets received, the unsold tickets turned back, the number of tickets sold, and the amount of money turned in. The ticket seller turns in the original copy of this report with the money, keeps the second copy for his own record, and leaves the third copy in the book or files it for convenience of examination by an auditor.

Report for each game. The athletic manager is charged with the duty of making a triplicate report for each contest for which there are receipts or expenses (form 182). The form used shows receipts and disbursements and the profit or loss on the event. Opposite each item of disbursement he places the check number if the payment was made by check; if the payment was made in cash, the person receiving the payment signs his name in this column as

a receipt. One copy of the report goes to the principal's office, the second is retained by the athletic manager, and the third remains in the book for reference.

Treasurer is banker. As was shown in explaining the duties of the treasurer, she is the banker for all high school activities. The athletic manager as well as the managers of all

high school activities deposit all receipts daily with the treasurer and she countersigns all checks issued by the athletic manager or manager of other school activity.

Athletic Manager's Accounts. The athletic manager must keep a complete record of all the business of his department. He keeps a complete record of all moneys received and all payments made regardless of the manner in which they are made. Thus, in recording payments made on trips, and in other exceptional cases where bills are paid in cash, total payments in detail are entered in the cash book.

The books kept are quite simple of the same style as used by the school treasurer. They consist of a columnar cash book (form 183) of loose leaf construction. Cash on hand at the beginning is entered in the "total receipt" column and as money comes in, it is entered in the appropriate column with an explanation of its source and receipt number and the amount extended in the "total receipt" column. If money is deposited with the treasurer for more than one sport at the same time the subamounts are designated for the treasurer's information, and are entered by the athletic manager in the appropriate column in his cash book. For example, a \$40 item might be \$40 for the "total receipts" column and \$25 for the "basketball receipts" column and \$15 for the "swimming receipts" column. Likewise all payments are entered in the "total distribution" column and in the "distribution" column of the sport concerned. At any time the total of the seven "sport receipt" column totals should equal the total of the "total receipt" column less the beginning balances and the same check may be applied to the disbursement columns. These checks are to be made at the bottom of each page before totals are carried forward. At any

(Concluded on Page 74)

North High School Blue Mounds Athletic Manager's Report	
Report of a _____	Game _____
At _____	Contestant _____
RECEIPTS From School Treasurer (For _____) From Gate Receipts _____ From Contract Agreement _____ Miscellaneous _____ Total _____	
DISBURSEMENTS By Contract Agreement _____ Officials—Referee _____ Umpire _____ Headlinesman _____ Police _____ Main _____ Hotel _____ Railroad Fare _____ Street Car _____ Advertising _____ Miscellaneous _____ To School Treasurer _____ Total _____	
Profit and Loss Statement Net Receipts _____ Season Ticket Allowance _____ Total Income _____ Total Disbursements _____ Unpaid Costs _____ Total Costs _____ Net Gain or Loss _____ (Signed) _____ Date Oct. 15 1925 145 East 10th Street CHICAGO, ILL.	

RECORD FORM FOR INDIVIDUAL GAMES OR FIELD DAYS.



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(Concluded From Page 72)

time the difference between the "total receipts" and "total disbursements" columns should equal the balance on hand as shown by the school treasurer's books.

Abstract of Sports. Besides the general cash book pages there are provided in the same loose-leaf binder sheets (form 184) sheets for an abstract of each sport—football, basketball, etc. When an entry is made in the cash book the same is immediately posted to the "abstract of sports" section for the particular sport concerned. For example, \$60 for football season tickets after being entered in the cash book would be entered in the "abstract of football" section, using "total receipts" and "season ticket" columns. As a check for accuracy, the totals of the totals of the "receipts classified" columns should equal the "total receipts" column, which, in turn, should equal the "sport receipt" column for that particular sport in the cash book. Of course, disbursements may be checked in the same manner.

A sample page of the "abstract of sports" accounts is shown in the illustration. The "receipts classified" columns are self-explanatory. Items of disbursement are classified as follows: Home contests—Expenses of all games at home; Contests away—Expenses of all games or meets out of the home city; Equipment, New—Uniforms, footwear, headgear, footballs, and other equipment used indefinitely; Equipment, Upkeep—Repairs, cleaning, laundry, etc.; General Supplies—Medical, training, and other supplies consumed in the using; Grounds—Labor, materials (such as lime), rentals and other expenses necessary for the maintenance or securing of places for contests; Office supplies—Postage, stationery, record books, etc.; Sundry—Items not included elsewhere.

Inventories. Among the important pro-

visions of accounting is the permanent inventory of athletic equipment. This is a feature that no school would care to omit from its system. In a book or on a card should be entered all purchases of equipment as made and worn-out material charged off. A card (form 196) or (form 172) is used for charging articles of equipment to individual players. At the end of the year an inventory is made using (form 200), (see illustration). The price entered for each article is its estimated present value. The list is checked by actual count to make corrections for articles lost or worn out.

Filing. All receipts, invoices, and other papers are filed and kept available for reference. At the end of the year they are sent with the manager's annual report to the high school treasurer's office for inspection by the superintendent's auditor during the summer vacation.

Reports. A seasonal report is made for each sport at the close of the season for that sport or when asked for by the principal or superintendent. An annual report, including a business statement, a financial statement, an inventory of all equipment and supplies, and a copy of the season report for each sport, is made on or before the last day of each school year. Copies are filed with the superintendent, the supervisor of physical education, the principal, and the local athletic department.

Thus report includes: (a) *Annual Business Statement.* Form 313 is used showing total receipts and disbursements. (b) *Financial Statement.* Form 312 is used showing all the assets and liabilities at the end of the school year. Cash on hand is the balance shown by the cash book and should check with the athletic balance on the books of the high school treasurer. The inventory item is the total value of equipment as shown on the inventory already described. Notes Receivable and Accounts Re-

ceivable should be shown in detail. Under Liabilities, any Notes Payable or Accounts Payable should be shown in detail as to whom the amounts are due. Losses are shown by changing the wording or using a minus sign and then deducting instead of adding. (c) *Inventory* as already described. (d) *Individual Sports.* This is a separate report of each sport for the year (form 173) obtained from the abstract of that sport and a general report of all sports (form 313).

This whole annual report is audited by a local committee and then filed with the treasurer so that the superintendent's auditor may consult it during the summer.

Similar plans are outlined in the Des Moines manual for the business management of high school publications and for lunchrooms.

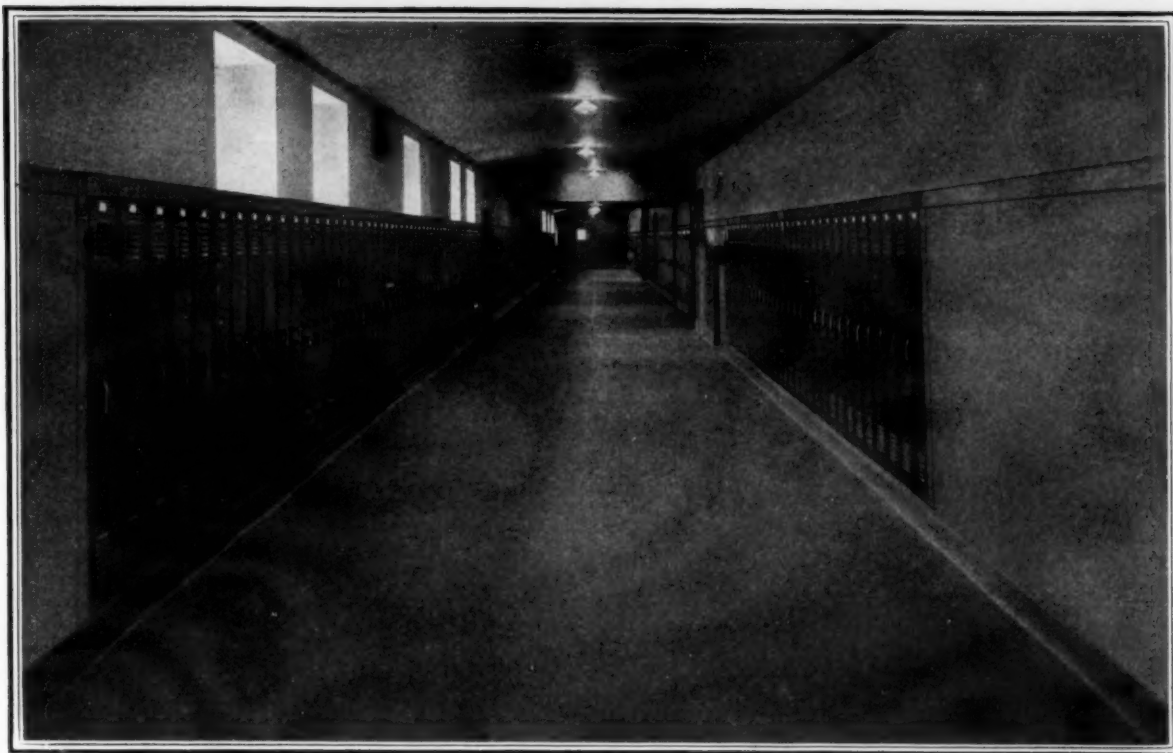
PERSONAL NEWS

—Dr. Charles H. Keene, director of health education of the Pennsylvania state department of public instruction, has resigned to become professor of hygiene and director of physical education at the University of Buffalo. Dr. Keene is succeeded by William G. Moorhead, who will be acting director of the health education bureau.

—Prof. F. E. Carleton of the State University of Oregon, and for several years assistant state superintendent, has announced his candidacy for the office of state superintendent. Dr. Churchill, who formerly held the office, has become principal of a new State Normal School.

—Supt. Charles B. Boyer, of Atlantic City, N. J., was tendered a testimonial dinner recently in commemoration of the completion of his 35th year in executive work in that city, two years as principal of the high school, and the remaining years as superintendent of schools. Supt. Boyer was presented with a bronze tablet suitably inscribed in his honor, and with a handsome clock. The board of education recognized the services of Supt. Boyer by raising his salary for the next year to \$10,000.

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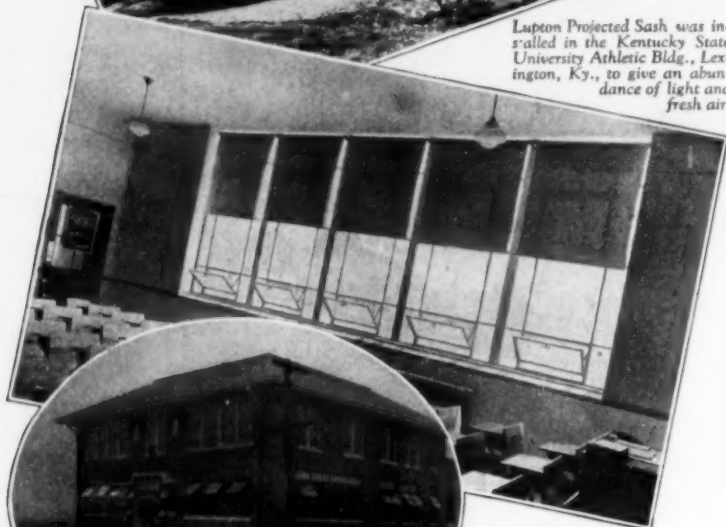


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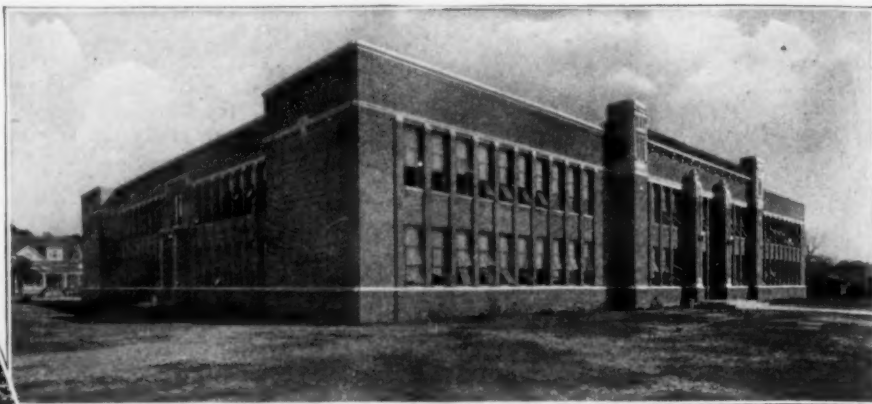
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SCHOOL LAW

Schools and School Districts

The existence and extent of an independent school district cannot be questioned in an action by a private individual, but can only be determined by a suit in the name of the state, or by someone under its authority.—*Turbeville v. Gowdy*, 272 S. W. Reporter (West) 559, Tex. Civ. App.

A community consolidated district cannot be organized out of territory bounded by common school district lines as they have formerly existed, but must be organized out of territory bounded by district lines as they exist at the time of organization of a consolidated district.—*People v. Madison*, 148 N. E. Reporter, 247, Ill.

School District Government

In view of the reorganization of a department of education by the Alabama acts of 1919, p. 568, and the further enlargement of the duties of the state superintendent of education by the acts of 1920, p. 137, and in view of the acts of 1923, p. 789, fixing his salary at \$6,000 per annum, after expiration of the ensuing term, it is held by the courts that an allowance to the superintendent by the state board of education of \$2,000 per annum, in addition to \$4,000 he was then receiving, was not invalid.—*McElderry v. Abercrombie*, 104 So. Rep. 671, Ala.

Under the Kentucky laws of 1920, c. 36, § 10, the laws of 1922, c. 39, and the laws of 1924, c. 52, § 3, the county board of education elected in November, 1925, and which takes office on the first Monday in January, 1926, should appoint a county superintendent who takes office in July, 1926, for a term not exceeding four years, and the present board, whose term expires in January, 1926, has no power to appoint such superintendent.—*Harrod v. Hoover*, 272 S. W. Rep. 400, Ky.

A plaintiff seeking damages for breach of a teacher's contract entered into by two mem-

bers of the school board, without legal notice to a third member as required by the Minnesota general laws of 1923, § 2814, cannot attack the right and title of a third member, who was treasurer, to his office, by showing that he had not filed bond.—*Martin v. Common School Dist. No. 3, Ramsey County*, 204 N. W. Reporter 320, Minn.

School District Property

The sale of lunches and refreshments on school premises during lunch hours only to teachers and pupils for the purpose of furnishing a sanitary and safe service, and rendering exposure to inclement weather unnecessary, is only incidental to the main purpose of schools. It is in the interest of safe, sanitary, and efficient conduct of schools, and is not an unlawful use of the school buildings.—*Ralph v. Orleans Parish School Board*, 104 So. Rep. 490, La.

A company installing a heating system for a school district is held an independent contractor, and a school district was not liable for its negligence in leaving a radiator in such a manner that a child was injured thereby, where the contract gave a district no control over the manner of the work.—*School Dist. No. 1 in City and County of Denver v. Kenney*, 236 Pacific Rep. 1012, Colo.

School District Taxation

Where, at the time of an election authorizing the board of education to issue bonds, the assessed valuation of property of the city covering the school district was only \$2,638,923, but at the time the bonds were issued, the assessed valuation was fixed at \$4,607,811, the board of education was authorized to incur about \$92,000 in indebtedness, without transgressing the two per cent limit of property valuation fixed by the Kentucky constitution, § 158.—*Sutherland v. Board of Education of the City of Corbin*, 272 S. W. Rep. 887, Ky.

Under the Kentucky constitution, § 158, prohibiting municipalities and taxing districts from exceeding a certain indebtedness, to be estimated by assessment next before the last assessment previous to the incurring of the indebtedness, the amount of indebtedness which might be incurred by the board of education was not controlled by the assessment next before the election at which the bonds were authorized, but by the assessment next before the indebtedness

was incurred by the issuance and sale of the bonds.—*Sutherland v. Board of Education of the City of Corbin*, 272 S. W. Rep. 887, Ky.

Where the taxable property within a school district justifies the issuance of bonds under the Louisiana statutes, the discretion of its officers as to the amount of bonds issued, the length of time they are to run, etc., cannot be controlled by the courts.—*Gulf Refining Co. of Louisiana v. Phillips*, 5 F (2d) 514, U. S. D. C. La.

As a county or municipality is not required to issue all bonds voted at an election at one time, but may issue them as needed, the right of a board of education to issue the balance of bonds, authorized by an election for the erection of additional school buildings, is held not lost by the delay of two or three years.—*Sutherland v. Board of Education of City of Corbin*, 272 S. W. 887, Ky.

In a suit to enjoin the trustees of an independent school district from levying and collecting taxes, an allegation that the school trustees have been arbitrarily and unlawfully assessing the plaintiff's land at a higher value than the same is assessed per acre for state and county taxes, presents no ground for relief, since practice in the past is immaterial.—*Turbeville v. Gowdy*, 272 S. W. Rep. 559, Tex. Civ. App.

A school district cannot divert taxes levied for current school expenses to pay the existing indebtedness created during the previous fiscal year.—*Gulf Pipe Line Co. v. County Treasurer of Tulsa County*, 236 Pac. Rep. 896, Okla.

Teachers

In view of the Minnesota general statutes of 1923, § 2814, requiring a contract by a school board to be made in a meeting of which all members have legal notice, where two members held meetings without notice to a third member, the board was not estopped from urging the invalidity of an executory teachers' contract made thereat, though such a contract recited that it was made by the board at a meeting called for such purpose.—*Martin v. Common School Dist. No. 3, Ramsey County*, 204 N. W. Rep. 320, Minn.

In view of the requirements of the Minnesota general statutes of 1923, § 2903, a school board is the only body that can ratify an executory teacher's contract, defective because it is ex-

(Continued on Page 79)



East High School, Columbus, Ohio
Howell & Thomas, Cleveland, Architects



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(Continued from Page 76)

ecuted at a meeting of which one member had no legal notice as required by section 2814, and then only by acts as formal as those necessary to enter into the contract.—*Martin v. Common School Dist. No. 3, Ramsey County, 204 N. W. Rep. 320, Minn.*

Under the New York education law, § 1109, a teacher of a certain age or who has performed certain services "may" retire for superannuation, and the retirement board is required to retire him within thirty days of the date specified by him for retirement; but under section 1109a, retirement for disability is within the discretion of the board and eventuates only if the board determines after a medical examination that a teacher is physically or mentally incapacitated and ought to be retired, and the board is not required to report within a specified time.—*Fitzpatrick v. New York State Teachers' Retirement Board, 210 N. Y. S. 419, N. Y. App. Div.*

Pupils

Under the Montana laws of 1923, c. 19, and the revised codes for 1921, § 1015, subd. 20, a resident of the county may attend a high school, which is maintained by the county, not in his school district, provided that in the judgment of the board, there is sufficient room.—*Peterson v. School Board of School Dist. No. 1, Cascade County, 236 P. 670, Mont.*

In view of the Montana revised codes of 1921, § 1056, giving the board of trustees of a school district power to admit children not residing in a district, and section 1015, giving it power to determine the rate of tuition of non-resident pupils, the determination in the first instance of who are and who are not non-resident is with the board, acting in quasi judicial capacity, and the courts will not interfere with the proper exercise of its discretion.—*Peterson v. School Board of School Dist. No. 1, Cascade County, 236 P. 670, Mont.*

A bona fide resident of a school district is entitled to attend a high school without paying tuition.—*Peterson v. School Board of School Dist. No. 1, Cascade County, 236 P. 670, Mont.*

A non-resident of a county may not attend a high school therein except upon the payment of a tuition fee prescribed by the school board.—*Peterson v. School Board of School Dist. No. 1, Cascade County, 236 P. 670, Mont.*

The Kansas revised statutes 72-601, providing that a school board, in lieu of furnishing transportation of pupils living more than three miles from a school, may allow as compensation for conveyance to a parent or guardian not less than fifteen cents per day, contemplates the payment of at least fifteen cents per day for each child conveyed, although several belong to the same family.—*Waits v. Kelley, 236 Pac. Rep. 827, Kans.*

LAW AND LEGISLATION

—The Wisconsin Department of Public Instruction points out that the school law requires the teacher, principal, superintendent, or other person having charge of and supervision over any public, private, or parochial school, high school, or normal school, at least once a month to cause pupils in the school to be drilled in the proper method of orderly and rapid departure from the building. The law fixes a penalty of not more than \$25 for failure to comply with the provisions. It applies principally in cases where buildings are more than one story high.

—Under a new Wisconsin law, a teacher who has been engaged at a regular meeting by a clerk and treasurer who has not filed his bond, nevertheless is legally hired, as the courts hold that the elected but not legally qualified treasurer is an officer de facto. An old requirement that the clerk must be one of the officers in favor of contracting with the teacher was abolished years ago, and all officers now stand on an equal footing.

—A campaign has been started for the passage in November of the proposed constitutional amendment to allow judges of the Kentucky Court of Appeals and officers, particularly the school superintendent of Louisville, to receive more than \$5,000 a year salary. The amendment is being supported by the local Elks' club, the board of trade, the Bar association, the parent-teacher association and other organizations.

—Politics, religion, and the personal likes and dislikes of individuals no longer have any weight in efforts to remove superintendents of schools in Iowa, according to officers of the Iowa Teachers' association. Secretary C. F. Pye, of the teachers' association, has declared that the superintendent of schools can be discharged be-

fore the expiration of his contract only because of incompetency, inattention to duty, or partiality.

He holds that the mere fact that the superintendent is not liked by some people, or that his politics or religion is different from that of the board of education members, can carry no weight when an effort is made to discharge him before the expiration of his contract. Numerous instances of boards of education removing superintendents because of political or religious differences have disclosed that the office is beyond petty politics. Recent attempted dismissals at Dubuque and Glidden, and their subsequent reinstatement, have been cited as examples.

—The Turner anti-fraternity law, designed to prohibit high school fraternities in schools of the state of Michigan, recently went into effect. It requires that school boards and school officials withhold credits, or expel students known to belong to societies or organizations operating under by-laws or rules contrary or outside the regulations of the school law.

It appears the state had a law intended to restrict high school fraternities and sororities, but the law failed to define properly the terms fraternity and sorority and so proved ineffective. The present law strictly defines the sororities and provides penalties depriving offenders of their credits or graduation, and holds school officials responsible for its enforcement.

—An attempted evasion of the law against public officials of Ohio participating in contracts has brought an opinion from the attorney general that the mere fact of a member of the board refraining from voting in favor of a contract employing his son or daughter as a teacher is not sufficient to place such attempted contract of employment beyond the provisions and penalties of the law. The signing of a contract by a board member as president of the board is considered participation in the making of the contract.

—The Department of Public Instruction of Wisconsin has ruled that neither a legally qualified teacher nor the board of education nor the school district board is liable for damages for the unjustified expulsion of a child from school so long as the teacher and officials act in good faith.

PROFESSIONAL SCHOOL SERVICE DIRECTORY

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The same department has also ruled that mandamus may not lie against a teacher to reinstate a child who has been suspended for misconduct. It is the duty of the teacher to notify the board. It then becomes entirely a board matter. If the board is guilty of arbitrary action in refusing to reinstate the pupil, the matter may be brought before the court. Arbitrary rules and regulations, made in good faith either by the teacher or the board, do not render the makers liable for damages.

—Under a recent decision of the Attorney-General of Illinois, it is held that the new law relating to county superintendents, in which the superintendent is prohibited from practicing or holding himself out as practicing any other profession, means any other profession of the same general nature, such as the law, medicine, or dentistry.

Similarly, the attorney-general holds that the section of the school law relating to the sale of books, apparatus or furniture by the assistant county superintendent is broad enough to prohibit such sales directly or indirectly by such superintendent and applies with equal propriety to assistant superintendents.

—The Boston, Mass., school committee has filed claim against a former teacher for salary paid her during the school year of 1924-25. The rules of the committee provide that marriage terminates the contract of employment. The teacher in question was married and kept that fact from the knowledge of the school authorities during the period named. The New Bedford Standard, in commenting on the case, says:

If any attempt is made to recover the salary which, it is maintained, was secured under false pretenses, it will be interesting to see how the courts decide the question. The woman performed her duties for the time mentioned, and

presumably performed them to the satisfaction of the authorities. The fact that she was married brought about no impairment of her teaching competence—none, at least, that any of her superiors observed. Presumably she was as good a teacher as she was before she was married. From this it might be inferred that what impairs the value of a woman teacher is not being married, but the fact of her marriage being generally known; and if that is true there was no impairment here because the marriage was concealed.

—Two members of the school district No. 5 of Camona Island, Washington, contracted with Herman Moe, a bus driver, for the transportation of pupils.

The work was rendered and the pupils carried as the contract called for, but when it came to settlement, the member of the board who was not present when the contract was made, held that the school board had no right to make such a contract and got one other member to hold with him. The result was that Moe had to sue for his money. The defense was technical, one point being that a school district had no right to make a contract to haul pupils outside of the county. The other was that the meeting was not regularly held and therefore those present could not make a binding contract.

In view of the fact that the service had been actually performed and were reasonably worth the price asked, the court rendered judgment for Moe. The district has the cost to pay.

—Under a decision of the Wisconsin Department of Public Instruction, a school officer elected by acclamation requires "color of title" to his office and can only be judged by application to the judge of the circuit in which the official resides. The electors, at an adjourned annual meeting, or a special meeting, do not have authority to declare the office vacant, and

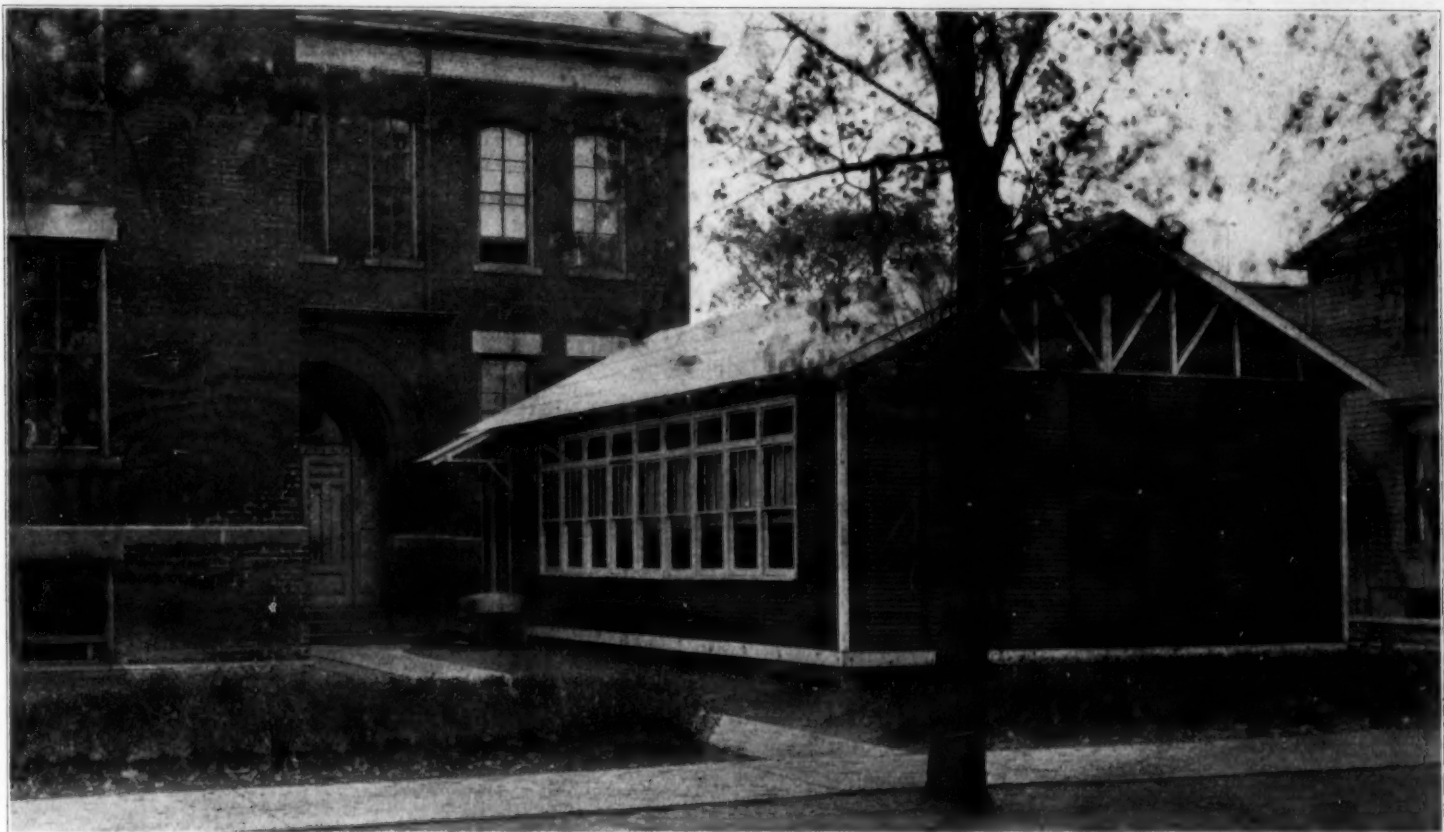
give the board authority to make an appointment.

Another decision by the same department declares that if the electors at an annual or special meeting have authorized the school district or board of education to provide free textbooks, it is unlawful for the board to adopt a rule charging rental. When the free textbook plan has been once adopted, such plan can only be changed by a vote of the electors and not by a ruling of the board.

—An ordinance recently passed by the board of aldermen of Natchez, Miss., provides that no child, pupil or student shall be enrolled, enter or attend any school within the city unless such child has been successfully vaccinated against smallpox in the last five years, nor shall any child, pupil or student continue to attend any school in the city unless he shall have been successfully vaccinated within the last five years. It is further required that the child, pupil or student shall exhibit to the teacher or principal, on application for enrollment, a certificate of successful vaccination or exhibit the scar thereof, provided this shall not apply to anyone who has been vaccinated without success three times within a period of five years, and no parent shall send such child to any school, public or private, or permit him to attend in violation of these provisions. The penalty for violation of the ordinance by any parent or guardian is a fine of not more than \$100.

—At Johnson City, N. Y., an appropriation of \$200,000 has been made for an addition to the Johnson school.

—Hyde Park, N. Y. The school district has made an appropriation of \$300,000 for two school buildings, one of sixteen rooms, to cost \$215,000 at New Hyde Park, and the other of six rooms, to cost \$85,000 at Garden City Park.



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Whether "we need a new school"; whether to anticipate the future needs of the community; whether to tolerate overcrowding a year or two longer, or to carry the load of debt while empty halls are slowly filling up, are questions on which many a community may well be divided in opinion.

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BUILDING NEWS OF THE SCHOOLS

BUILDING NEEDS FOR CHICAGO SCHOOLS

In the discussion of a building program for the public schools of Chicago, two major phases have been kept in mind: The development of plans and the placement of buildings.

For the first time in the history of Chicago there has been instituted a definite policy for guidance in the erection of school buildings. The decision to adopt a policy came as a result of the rapid rising of shortage in school accommodations, which for the second semester of the school year 1924-1925, approximated 1,650 recitation units. This amounts to 55 three-room school buildings.

A second reason for the development of a policy was the constant building of small school units which, in the long run, are relatively more expensive and less efficient than a school of average or larger size.

Briefly, the plan of placement as defined in a recent report, and adopted by the superintendent, was as follows:

1. Standards set up for each type of school. These are as follows:

	Elementary	Junior High	Senior High
Maximum Traveling Distance	¼ mi.	1¼ mi.	2½ mi.
Standard Traveling Distance	½ mi.	1 mi.	2 mi.
Standard Contributing Area	½ sq. mi.	2 sq. mi.	8 sq. mi.

2. Typical floor plans for buildings which can be expanded from an initial unit to the maximum to be expected in each of these standard districts have been or are being developed.

3. A tentative placement of schools was developed by applying these standards to the territory now within the city boundaries. Due consideration was given to the presence of natural barriers, traffic barriers, and zoning ordinance requirements.

4. The city was divided into 29 tabulation districts. For each of these, a careful statement of the present accommodations, room shortage, past, recent and prospective growth, and a suggested plan for immediate relief was prepared.

Using the standards and guided by the priority needs the superintendent made recommendations for 45 new school buildings varying in size from 600 to 3,500 seating capacity. The variation is occasioned by the type and location of the building, whether it is in outlying newly developed territory, or in old, long-neglected territory where a shortage in accommodations has accumulated gradually but surely. To carry out the program and plan, 27 new sites were recommended.

A continuous study has been made of the needs and growth in every portion of the city and a series of recommendations will provide for a continuous growth in population. Adherence to the plan, together with the provision of the necessary funds, will eliminate the use of portables which are recognized as poor makeshifts for good school buildings.

NEW YORK CITY HAS BIG DROP IN SCHOOL CONSTRUCTION

The planning and building of new schools in New York City is believed to be at the lowest point in years. The official figures on building operations, made public in September, reveal that the slowing up of school construction is continuing. There has been a slight increase in plan preparation, but the present total is far below the figures for February, 1924. In that month the building department had plans in preparation for new schools providing 70,745 sittings, while the total for September, this year, was 37,837. Since June first, few additional projects have been put on the drafting tables.

The figures on sittings under contract show a drop in school building. In the space of one year, the total has been reduced more than half. In September, 1924, the building department reported buildings under contract providing 146,057 sittings. In September this year, the total was 65,484. A year ago, the board had 146,057 sittings under contract, but it also had 59,886 sittings planned. This year, with a total of 65,484 sittings under contract, it has plans under way for 37,937 sittings.

Of the total sittings (63,484) under contract on September first, the building department has made available 41,323, leaving 24,161 under contract. This is the smallest number of new sittings under contract at one time since the board of education began its huge school build-

ing program. The number of sittings has decreased from 96,612 in March, 1925, to 65,484 in September.

BUILDING NEWS

—At Wabash, Ind., a new high school building is in process of erection. The building will be ready for use in September, 1926.

—Inspection of 400 schools in the state of New Jersey has revealed that one-third are lacking in the proper equipment for fighting fires. The state board was asked to correct the condition, and the legislature will be called upon to enforce obedience to municipal fire regulations and to provide for regular fire inspections. It is planned to conduct a general fire prevention campaign.

—New York, N. Y. Plans have been prepared for three new schools in Brooklyn Borough to provide 2,545 sittings. Two of the schools are for full eighth-grade schools, and the third is planned for the first six years of the elementary course. One school is of the type J, four-story building, while another is a sixteen unit of a three-story building.

—Logan, Utah. Steps have been taken toward bonding the city for \$100,000 for the erection of additional school buildings.

—The local trades council of Austin, Tex., has proposed that the school board appoint an all-around labor man to be known as the maintenance man of the schools. The duties of this man would be to make all minor repairs, to keep the furnace in shape, and to care for repairs on lighting and plumbing fixtures.

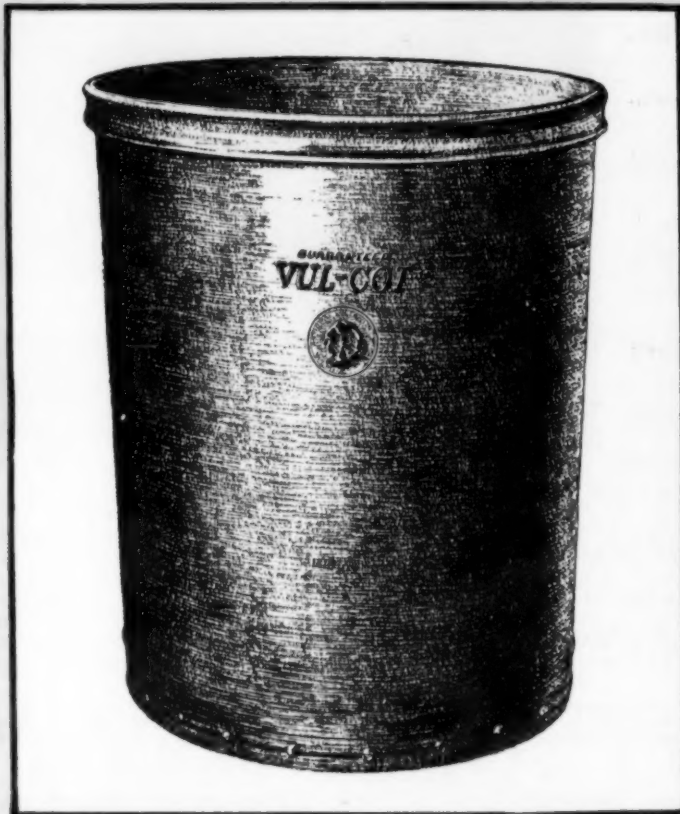
Under the plan, janitors in the several school buildings would be relieved of much of their present work. It would eliminate the present method of repairing city schools each year under private contract, and would give the maintenance man authority to make the repairs, employing such men as he saw fit.

—Pittsburg, Kans. The school board has taken the initial steps for establishing a building program that shall adequately meet all housing and construction problems of the city schools. An inspection of the present buildings by an architectural expert has resulted in the opinion that it is cheaper to build new structures than to repair the old ones.

—Burley, Ida. Eight motor trucks are being used this year to transport the country pupils to and from school, as against nine last year. The

(Concluded on Page 84)

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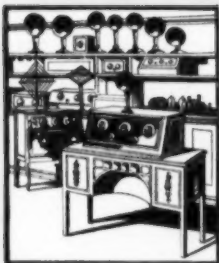
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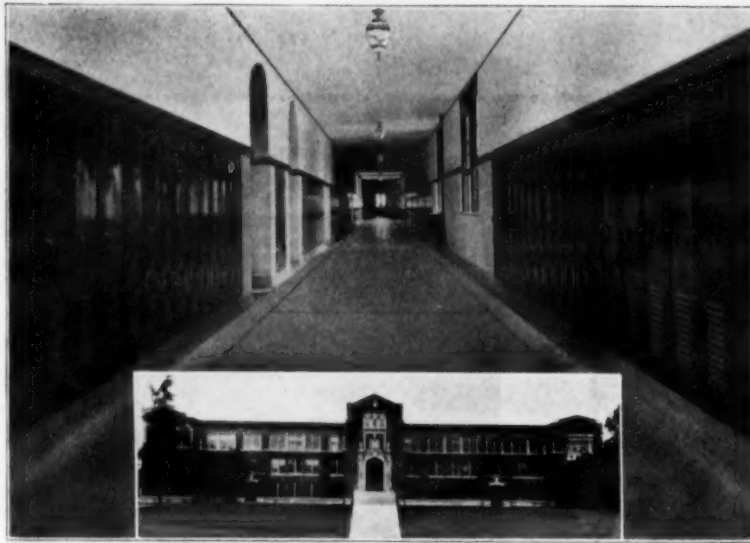
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(Concluded from Page 82)

reduction in trucks is due to the use of a ticket system which enables school authorities to keep complete records of each pupil.

The cost of the operation of the trucks for this year is much less than a few years ago. The total cost of transporting 850 pupils last year was \$11,647, while in 1920, \$21,000 was paid out for the transportation of 650 pupils.

—Longview, Wash. An unexpected increase in attendance has made necessary the use of an additional school bus, making a total of four now in general use.

—The school board of Abington Township, Pa., has asked the voters to approve a loan of \$425,000 for erecting small units of elementary schools on three sites, these to be later developed into large structures.

—Louisville, Ky. The proposed ordinance placing a \$5,000,000 bond issue for construction of schools on the municipal ballot has been delayed by the general council. A clause will be inserted in the ordinance permitting the sale of the bonds, as needed, instead of in a lump sum.

—Adrian, Mich. The school board recently placed before the voters, at a regular election, the proposed bond issue of \$300,000 for new sites and for the erection of three new schools. The buildings are needed to overcome crowded conditions in the schools.

—New York, N. Y. Plans have been prepared for a building in the Bronx to house the Theodore Roosevelt high school. The building will be erected at a cost of \$3,500,000.

—Supt. J. H. Newlon of Denver, Colo., in a recent statement, declared the city had been saved \$200,000 in its present building program over the estimated cost of carrying out the program of three years ago. This saving, declared Supt. Newlon, was effected through reduced expenditures on the three new senior high schools now in course of construction.

At the time of the original bond issue in October, 1922, it was estimated that an additional \$2,400,000 would be required to complete the senior schools nearing completion. The school board, through the practice of economy, has been able to reduce the first estimated needs of \$2,400,000 by a total of \$260,000. Through the practice of economy, the board has been able

to erect a new school at a cost of \$70,000, which had not been included in the original program. The new school takes care of the students in the University Park district.

—New Britain, Conn. The annual report of the superintendent contained a recommendation that a new school be erected in the northwest section of the city.

—Chicago, Ill. With the opening of the new school year, fifteen new schools and additions to old ones were placed in use, adding 10,948 seats to the total capacity of last year.

—Evansville, Ind. Chief among the projects for better school construction the past summer was the Carpenter school, which was remodeled at an expenditure of \$63,000. New school units were also erected at the Howell and Reis schools, at a total expenditure of \$257,000.

—New Castle, Ind. The school board has renamed the schools and hereafter they will bear the official names assigned to them. The names selected are Omar Bundy, James Weir, Charles S. Hernley, Holland and Benjamin S. Parker.

—Cleveland, O. The board of education has adopted a school building program. Preliminary to actual work on the program, the board has asked for a tax levy of two-tenths of a mill for building purposes to cover a period of five years. A bond issue of \$2,000,000 has already been placed on the November ballot to be voted upon by the citizens at the regular fall election.

—Indianapolis, Ind. Final plans for the two new high schools have been approved by the school board and bids will be received for the construction work.

—Mr. Wm. S. Robinson, superintendent of schools of Taylor Pa., has announced the passage of a \$300,000 bond issue for a new high school and the remodeling of the grade schools.

—The school board of Reading, Pa., has awarded the contract for a \$1,000,000 cosmopolitan senior high school, to accommodate 2,200 students.

—A new high school, two grammar schools, and three additions were used for the first time by Buffalo, N. Y., school children with the opening of the fall term. The new buildings accommodate 7,000 pupils. Among them was the Bennett high school, which accommodates 3,000 students.

—The Fort Edward, N. Y., high school, built on an attractive site at a cost of \$240,000, was recently dedicated. Among the speakers were District Supt. Rose E. Gibbons, Principal F. Barber and President F. H. Hoysradt of the board of education.

—Three years ago Denver, Colo., provided a school bond issue of \$4,800,000 for new schools. Under the building program, as it has progressed, it is estimated that a saving of \$260,000 will be made.

—Somerset, Ky. The school board recently let the contract for a new grade building, also for an enlargement of one of the present buildings. Two years ago, two buildings were doubled in size, and another was enlarged last year, all without recourse to a bond issue.

—A bond issue of \$225,000 was recently used for high school purposes at Covina, Calif. From the proceeds of the bonds, a new auditorium seating 1,000 was built; an up-to-date science building was erected, also a shop for metal and wood working.

—During the last ten years San Francisco has spent a total of \$40,536,540 on its public schools, of which the taxpayers contributed \$27,412,979, according to a report recently submitted to the board of education by W. A. Johnson, statistician of the school department. During this time the city taxes have increased from \$1,093,094 to \$3,913,942.

SCHOOLHOUSE DEDICATIONS

The new \$269,000 Edison school, Denver, Colo., was dedicated with festive ceremonies. Addresses were given by Lucius F. Hallett, president of the board of education; Jesse H. Newlon, superintendent of city schools; Dr. Minnie C. T. Love and C. M. Schenck, members of the school board.

—The dedication of the Quillayute high school in District No. 200, Washington, was attended by Mrs. Josephine Corliss Preston, state superintendent, who delivered the principal address. Mrs. Preston, who has held the office for thirteen years, said that it had been her aim to promote the establishment of high schools in every section in order to obviate the necessity of pupils going to larger cities for secondary education. She believes that there is great advantage in having pupils live at home while attending school.

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SCHOOL FINANCE AND TAXATION

MOUNTING SCHOOL COSTS IN ILLINOIS

The State Education Department of Illinois has prepared a table making an eleven-year comparison of costs of twenty items of expense in the state school system. In considering the question of mounting school expenditures, several points were kept in mind.

The public-school system received a more serious setback by the war than any other large institution, and it has taken more of an effort in the way of increased expenditures, to bring it back to its original efficiency. The total current expense shows an increase in these eleven years of 228.5 per cent. No fair judgment can be pronounced upon this increase without taking into consideration the fact that the purchasing power of the dollar in the decade from 1913 to 1923 decreased to 58 cents on the dollar in its power to purchase the services of the teacher, to 53 cents on the dollar in its power to purchase the material of school construction, and to 48 cents on the dollar in its power to employ labor for the construction of buildings. In other words, a dollar in 1923 had approximately the purchasing power of 50 cents for these three main items of school costs as compared to 1913. One authority stated that it took \$189 in 1923 to purchase the same amount of building material as \$100 bought in 1913; \$207 to buy as much school construction labor as \$100 would obtain in 1913. Therefore, the apparent increase in costs should be reduced from 228 per cent to 114 per cent.

It is apparent that certain increases in the quantity and quality of education have taken place in the school system of Illinois in these eleven years. A study of the table below will reveal that there has been an increase in expenditures for supervision of 330 per cent. The function of supervision is to increase the quality and effectiveness of instruction. Special supervisors and teachers help to detect the differences

in children and to provide the proper method and matter of instruction.

Another item of increase was in the pay of teachers. It is noted that there were 12,300 more teachers in 1924 than there were in 1913. A study of the figures on qualification shows that the teaching force was much better prepared in 1924 than in the eleven previous years. The number with both a college and normal school education had increased over 300 per cent. The number having a college education had increased over 100 per cent, while the number having partial and inadequate preparation has greatly decreased.

Again, it is noted that in these eleven years many of the newer phases of public education have increased greatly. The expenditures for the promotion of health throughout the public schools increased 1375.4 per cent. The amount expended for libraries increased 335.1 per cent.

In comparing the increase in costs for these years in Illinois with that of the nation at large, it is noted that while the increased cost in the 48 states was 208 per cent, in Illinois it was 228 per cent. In the leading states outside of the south, there are at least eleven states that made a larger expenditure per pupil in average daily attendance in 1924 than Illinois.

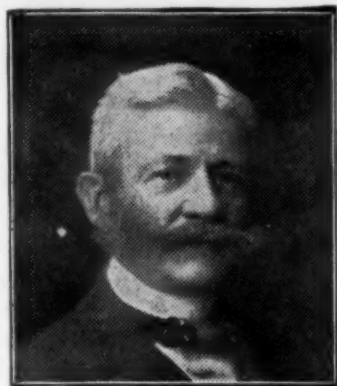
It is pointed out as a result of the study that whatever the rank of Illinois in the expenditure of money for public education, the main question centered on the question of securing educational returns commensurate with the money expended. Every school official should study the preparation of the annual budget and the annual expenditures in the light of the question.

The Cost of School Lunches in New York City
A statement of the receipts and expenditures in the 29 high school lunchrooms of the New York City high schools for the school term end-

Comparison of Itemized Expenditures for Operation of Illinois Public Schools—1913 and 1924

	1913	1924	% of gain
School Boards and business offices.....	\$ 305,105	\$ 1,461,192	378.9
Compulsory Attendance.....	103,713	262,025	152.6
Superintendents who do no teaching.....	298,727	1,284,960	330.1
Superintendents and principals who teach less than half time.....	1,291,757	2,577,481	99.5
Teachers and principals who teach half time or more.....	18,765,267	61,255,851	226.4
Teachers Pension Fund.....	948,431	3,025,720	370.0
Textbooks, stationery, supplies, etc.....	643,768	303,295	283.8
Interest on teachers' orders.....	79,007	1,006,873	194.3
Interest on anticipation warrants.....	1,891,084	5,566,698	163.5
Janitors, engineers, etc.....	1,788,211	4,712,733	166.7
Fuel, water, light, etc.....	1,999,601	5,334,742	166.7
Maintenance of plant (repairs, etc.).....	54,558	401,073	635.1
Libraries.....	13,863	204,546	1375.4
Promotion of health.....	20,837	277,957	1233.9
Transportation of pupils.....	98,995	562,748	468.4
Rent.....	194,248	607,549	212.7
Night Schools.....	420,382	2,020,878	380.7
Other Expenditures.....			
Total current expenses.....	\$27,960,123	\$91,904,752	228.5

General Statistics			
	1913	1924	Incr.
Number schoolhouses in use.....	13,331	14,013	682
Volumes in libraries.....	1,464,564	2,012,733	548,169
Number teachers.....	30,585	42,805	12,220
Number children.....	1,010,215	1,316,038	305,823
Average daily attendance.....	872,365	1,092,489	220,124
Number teachers graduates of—			
College and State Normal School.....	308	1,407	1,099
College only.....	3,166	6,602	3,436
State Normal School only.....	4,193	11,104	6,911
Four year high school only.....	9,088	10,400	712
Number teachers attending but not graduate of—			
College.....	2,251	2,630	379
State Normal School.....	5,875	7,902	2,027
High School.....	2,988	10,400	7,412



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ing January 31st, 1925, has been made public in the Bulletin of High Points, issued by the Board of Education. This statement shows that the total receipts amounted to \$375,057. The latter figure includes a depreciation of \$2,937. An analysis of the expenditures shows that the cost of food was 72.7 per cent of the total expenditures, the cost of labor seventeen per cent, the cost of management six and seven-tenths per cents, and the general expense three per cent. Twenty-four of the lunchrooms were operated at a profit, and five were operated at a loss. The lunchrooms which made a profit netted five and four-tenths per cent, and the lunchrooms which showed a loss had a deficit slightly in excess of five per cent.

FINANCE AND TAXATION

—President Marcus Aaron of the board of education at Pittsburgh, Pa., has issued a report for the year ending December 31, 1923, showing the increases in costs per pupil for 1923, as compared with 1913, and the per cent 1923 costs are of 1913 costs, classified by salaries and supplies and expenses. It is revealed that notwithstanding the largely increased cost of public education in recent years, the cost per pupil has not increased in as great ratio as the general level of costs and commodity prices. The figures show that the total expenses in elementary schools for 1913 were \$53, and in 1923 they were \$96.64, while the per cent of cost was 182. In the elementary schools, the total for 1913 was \$118.02, and for 1923 \$173.95, while the per cent of cost was 147.

—The citizens of Toledo, Wash., have been asked to approve an extra tax levy of ten mills for school purposes.

—A special election has been called at Vader, Wash., to vote on a tax levy of five mills for school expenses.

—Mt. Vernon, Wash. The school board has approved a budget calling for an increase in county taxes for 1926. The amount to be raised by taxation is \$155,000, while for 1925 it was \$134,170.

—Cincinnati, O. In announcing the tax rate for the fiscal year 1926, the budget commission has effected a definite reduction in the board of education levy, by which the provision of one mill for tuition purposes has been reduced to eight-tenths of a mill. Similarly, the budget for

general expenditures has been reduced by \$197,000 and the school tax is reduced by one-fifth of a mill. The total levy for all purposes will be 21.16 mills, or 2.24 mills more than last year.

It is estimated the board will begin the new year with a deficit of \$20,000, which is partly due to the fact that the calendar year 1925 has 205 school days since the schools opened a week earlier this fall. There will also be added \$520,000 more than last year largely for new teachers and automatic salary increases. In order to leave sufficient money for teachers' salaries, it will be necessary to defer important repairs and purchases for equipment of new schools.

—Billings, Mont. The school board has adopted a budget for the school year 1925-1926 amounting to \$309,500. The budget is divided into six parts as follows:

General Control—Superintendent's office, \$5,500; school board office, \$3,700; election and census, \$2,000.

Instruction—Salaries, \$175,500; books, \$6,000; supplies, \$4,000.

Operation—Janitors' salaries, \$21,000; fuel, light and water, \$14,000; supplies, \$1,600; miscellaneous, \$100.

Maintenance—Repairs on buildings and grounds, \$6,000; repairs on equipment, \$700.

Outlays—Building alterations, new equipment, \$600; grounds, \$300.

Other expenses—Bonds, \$30,000; fire insurance and taxes, \$5,500; interest and exchange, \$32,500; miscellaneous, \$500.

—Supt. F. A. Jensen of Rockford, Ill., has issued his annual report to the board of education, in which he shows that the taxpayers have been saved \$16.53 on each pupil in the high school last year, as compared with the previous term, and \$12.68 per pupil in grade schools. Supt. Jensen shows that the cost of education for high school students is ten per cent cheaper per pupil than for the previous year. In the elementary schools, the reduction was thirteen and one-half per cent. The cost of high school instruction per pupil last year was \$143.61, compared with \$165.14 the previous year. The per capita cost of instruction in the grades was \$82.57, as against \$95.25 the year before. The reduction in educational expenses has been effected by increasing the size of classes and by other economies. Despite this decrease in costs,

the standard of the schools has not been lowered, the percentage of failures is smaller, and teachers' salaries have been automatically raised.

—Grove, Ore. The school board is faced with a reduction in property valuations and a limited school tax levy. The board of education is studying various means of meeting the financial needs of the school system.

—Racine, Wis. The public schools cost the city a total of \$938,788 last year, according to a recent statement of the secretary of the board of education. The greatest decrease in cost was in fuel, water, and light and power, which registered a total of \$3,912 less than a year previous. The largest single item of increase was for new buildings. The total this year under buildings was \$138,443, while last year it was \$6,670.

—Boise, Ida. The school board has approved a four and one-half mill tax levy in addition to the eight mills authorized by law, the whole not to exceed sixteen mills.

—Mishawaka, Ind. The school tax levy for the next year has been fixed at \$1.16. This is a reduction of 25 cents over the levy of last year and means a reduction of about \$87,000 in the amount of tax money to be voted by the citizens this year. The total school budget amounts to \$403,710, which is apportioned among the special school fund, the tuition fund, the bond fund, and the library fund.

—Janesville, Wis. The school board has adopted a budget of \$269,965, which is \$1,965 more than last year. Instruction is the main item of expense in the budget, with a total of \$191,600.

—Oklahoma City, Okla. With a reduced school budget, the board of education is considering three items of expense that will be effected by an additional reduction of \$123,422 in the revenue. These are the establishment of a cripple school, erection of a new school, and additional facilities at the ward schools.

—Lima, O. The public schools will be forced to close about the middle of December due to a shortage of \$125,372 in the school fund, leaving only \$18,392 to carry the schools into December. The board members are studying the problem of adjusting the school system so that the school term need not be shortened, or the standing of

(Concluded on Page 90)



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(Concluded From Page 88)

the schools allowed to suffer from the forced closing.

—Detroit, Mich. Through the discovery of an error in the school budget, \$1,250,000 more than was anticipated, are available for building new schools. The board will continue its plans for new buildings in new residential sections as soon as the corporation counsel approves the spending of the money.

—Sapulpa, Okla. Charging that John Bennett and Bert Dibbert, members of the school board in Dist. No. 30, made contracts for more than the budget allowed by the excise board, R. R. Smith and B. F. Harris, residents in the district, have asked the court to enjoin the board and prevent the expenditure of the money. While the district was allowed \$562 for the maintenance of the buildings and grounds, the board let contracts aggregating \$1,442, or nearly two-thirds more than the estimate, while \$430 have been paid out on the contracts.

—Mitchell, S. D. For the third successive year, the school board has adopted a tax levy of \$165,000. Of the levy for the coming year, \$20,443 are allowed for the general fund.

—St. Louis, Mo. The board of education has been ordered to take steps for the protection of its collections of bond forfeitures, totalling \$4,500, for which Sam Shapiro, a bondsman is surety. The latter had advertised for sale the properties listed as qualifications for the bonds. Under the law, the proceeds of the bond forfeitures are turned over to the board of education.

—An economical business administration of the Colorado Springs, Colo., schools is indicated as a result of the tax survey made recently by Don C. Sowers of the University of Colorado. In his survey, Dr. Sowers stated that the small increase in the cost of supplies, operation and maintenance of the school system, after adjustments are made for the decline in the purchasing power of the dollar, indicates a commendable administration on the part of officials. Regarding the cost of current operation, it is seen that the cost per pupil rose from \$63.45 in 1914-15 to \$82.25 in 1923-1924, or an increase of \$19. The increase in the amount paid for teachers' salaries is responsible for an increase

of \$18 in the per pupil cost. This is caused by an increase in the number of teachers employed and a small increase in salaries paid. Sixty-seven more teachers were required in 1923-1924 than in 1914-1915. The employment of 67 additional teachers, at the average salary of \$1,065 required a total of \$71,500. An increase of \$293 in average teacher's salary, paid to 252 teachers, would require \$73,836. These two items total \$145,336, which is just the amount of the increase after adjusting the figures for the difference in the purchasing power of the dollar. The average salary paid teachers in Colorado Springs, measured in terms of actual purchasing power, increased \$293 between 1923-1924, a period of nine years, which represents an annual increase of \$33.

No examination of the school buildings was made to determine whether they are being maintained properly. It is pointed out that the janitors are employed on a twelve-month basis, and they perform most of the repair work during the summer months.

—Racine, Wis. An increase of approximately \$35,000 has been effected in the school budget for 1926. The total amount of the budget is \$846,090. The estimated revenues aside from the city taxes are \$132,327.

—The school board of Indianapolis, Ind., has sold its \$1,050,000 bond issue for financing the construction of new schools to a local banking corporation which presented a bid of \$1,033,267. The bond issue will yield a total of \$1,033,267 and the board has a margin of approximately \$15,782 in the proceeds of the bonds above the probable cost of the buildings. The bond bid accepted by the board was approximately 98.41 per cent of par. The six other bids ranged from about 94.5 per cent of par to about 97.5 per cent.

—The question why school taxes have jumped so high in Colorado is answered in a school survey which demonstrates that while the school census shows an increase of 3.7 per cent during the period from 1914-24, that the average attendance increased 17.8 per cent. The survey also shows that the high school enrollment has increased fully 50 per cent during the same period, and that the corps of teachers is one-third more and that the salaries have been increased 165 per cent.

The Biggest City School Budget

The budget adopted by the board of education of New York City for the fiscal year January 1, 1925, exceeds the sum of \$131,000,000. It is the largest of any city in the United States. The Public Education Association of New York holds that the figures enumerated in the budget are bewildering and recommends a descriptive and interpretative report accompanying the same. In a folder issued by the association the high spots in the budget are summarized as follows:

1. The major portion is, naturally, for instruction and for operating the school plant. It totals \$110,896,543.77, which is \$10,250,729.63 more than the allowances for the current year, 1925, and over \$13,000,000 more than for 1924.

2. Of this amount, it is estimated that \$21,648,139.63, or about three-fourths of a million dollars more than for this year, will be contributed by the state. This leaves \$89,248,404.14, or nearly nine and a half millions more than for this year, to be raised by taxation as part of the City budget.

3. In addition to this latter amount, however, the City must also provide \$331,215.62, or about five thousand dollars more than for this year, for the teachers' retirement fund, and \$542,130.41 to redeem special revenue bonds and tax notes which have been issued since the first of last January to supplement the original allowances for the present fiscal year. These additional items raise the amount to be provided out of taxes by the city to \$90,121,750.17, and increase the total tax budget, including state allowances, to more than \$111,000,000.

4. Besides the foregoing amount which must be raised by taxation next year, another sum, of \$20,000,000, is requested for the acquisition of sites and for enlarging and constructing buildings. As this is for permanent improvements rather than for annual operating costs, however, it is to be raised by a bond issue rather than by taxes, and thus constitutes, in effect, a separate budget.

5. To summarize, therefore, the total amount requested for school purposes next year, including all the sums to be raised—both by taxation and by bond issue—is over \$131,000,000, of which approximately \$110,000,000—or, to be precise, \$110,121,750.17—is to be provided by the city itself, and the remaining \$21,648,139.63 is to come from the state.

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What is the Dead Hand in School Ventilation?

John Smithson

It has been said that the word "ventilation" carries more dynamite for school authorities than any other word in the language.

Professor Winslow's able discussion in the June issue of the SCHOOL BOARD JOURNAL is an indication that competent authorities as able as he, are little aware of the amount and power of the dynamite in their conclusions, as to this all important subject. An indication of this, is the number of teachers now judging the atmospheric conditions of their rooms, from the location of their desks close to a window, with breezes fanning their faces, and feet kept comfortable by hot radiators. There is already so much of this, that the ultimate effect on the pupils can be estimated at considerably worse than if each one had a dead hand.

An authority so painstakingly careful in the collection of data as Professor Winslow, should find it easy to draw distinctions between ventilation results from open windows, where the teachers are carefully drilled in requirements and their work then as carefully supervised, as seems to have been the case in the New York schools, where the results from open window ventilation have been found so satisfactory, and the results from similar attempts, where this training and supervision are lacking. If Professor Winslow, and those who hold with him, will draw this distinction, and then calculate the cost of the training and supervision necessary to duplicate the New York City results elsewhere, they will find excellent reason for adding warning qualifications to their recommendations for open window ventilation. Their advice is sound for old buildings when it is impossible to provide better ventilation, but for new structures, it is *passé*, for teachers are human like all the rest of humanity.

Our experience in heating, especially in the few instances where results are measured by meters, instead of being guessed, teaches us the impossibility of any dependence upon any human nature anywhere, to secure real heating economy by exercising due control of the steam supply to radiators, if this human nature is charged with other duties and the function of heat control is made an incident to them.

Authorities like Professor Winslow, Doctors Englehardt, Strayer, McLure and others, looked upon as authorities in school administration, should have sufficient knowledge of the limitations of human nature, as shown by the experience of all heating men if their own experience is not sufficient, to make them very slow to recommend any method of ventilation that depends entirely upon the teacher's judgment, when something better is available. In this respect, such authorities have departed as much from the dictates of sound judgment, as the engineers who have so generally failed to recognize that the principles of good housekeeping apply to their ventilating practice as fully as they do to the matter of food handling. Unless these authorities halt their activities for open window ventilation, or at least qualify them by warnings as to the careful training that must be given to teachers to qualify them as ventilation experts, they will soon destroy a great deal of the confidence of school authorities in other items of administration that they now enjoy.

When it comes to a choice between the type of ventilation the engineers have been recommending, and what Professor Winslow and his class of thought have been urging, the decision must be made in Professor Winslow's favor. His recommendations are the lesser of two evils. But between his recommendations and the best possible atmospheric conditions for

health and vigor in school classrooms, that is something different.

It will be generally admitted that what we have learned about vitamins and their effect on health, during the past ten years, has completely changed previously accepted notions of food values. It is too great a tax on the imagination to ask, if it be not possible that there are qualities in our air, that have the same effect on health, that the vitamins exert in our food?

Two facts alone support a belief that this is so. And that the distress caused by our general school ventilation practice is a very real one, due, not to the presence of something detrimental in the air of crowded school enclosures, but to the absence of something vital, that ought to be there. These two facts are:

Rideal in his book, "Ozone" 1920, points out that experiments in certain European rural districts, showed traces of ozone. In village air on fete days before the collection of crowds; absence of these traces during these crowds; and the return of these traces after the crowds had dispersed.

F. A. Hartman, Chemist for the U. S. Ozone Company, in addresses to various engineering bodies, has asserted that he has proven to his own satisfaction that air passed through the ducts of any ventilating system, is "de-ionized."

Now our general lack of sufficient knowledge of the relation between cause and effect in ventilation practice, makes us generally fail to attach the significance to these two facts that they merit. What we now know of the ion theory of chemistry, should make ventilation authorities quick to grasp the bearing of these facts on our ventilation practice. There is an abundance of other scattered evidence all pointing in the same direction. Only one item is the statement in certain pamphlets being circulated by Dr. Georgine Luden, Assistant Director of Cancer Research, Mayo Foundation, Rochester, Minnesota, that her practice convinces her that much of what physicians term neurasthenia, for lack of better knowledge, is the result of carbon monoxide poisoning from leaky furnaces and heater smoke pipes. All of this justifies Professor Winslow and the class of thought he represents, up to a certain point.

The real question is, "Are Professor Winslow's recommendations the best ones, or are they only a makeshift aid, to correct a bad situation, that could be better corrected by a true understanding of what real ventilation is?" When the answer to this question is earnestly sought, from a point of view separated from past engineering practice in ventilation, we shall make real progress in our ventilation practice.

It is generally enough admitted by those competent to judge, that there are more children in our schools, positively injured from a lack of adequate fresh air, than were ever injured by impure water or inadequate food. The real difference of opinion arises when means are proposed to correct this condition. But it ought to be apparent to those so well trained as Professor Winslow, that any method of ventilation that depends on close and exact attention from human beings, whose main function is attention to other things, and upon winds that do not always blow, or when they do blow, blow only in one direction, is a makeshift that ought not to be tolerated in such important a matter as concerns the best health and vigor of school children. School attendance should be something more than an endurance race where only the most vigorous finish it.

FRANK L. BEAM

President, Board of Education, Mount Vernon, O.
Mr. Beam has been prominently identified with the business interests of his city for a number of years. He is a director in several prosperous and successful companies and is practically in continuous service as an officer of the Chamber of Commerce. His large success in business has merited the confidence of his fellow townsmen as well as men of prominence



FRANK L. BEAM,
President Board of Education,
Mt. Vernon, Ohio.

in all parts of Ohio and adjoining states. He has always been interested in the cause of education and the promotion of good schools.

At the November election in 1923 Mr. Beam was elected to the city board of education for a term of four years. When the board organized in January he was chosen unanimously as president and was reelected in January of this year. On the board of education Mr. Beam is displaying the same business sagacity that has characterized him during his whole business career. He believes that the best is none too good for the boys and girls of Mt. Vernon. At the same time his keen business sense encourages wholesome economy in the administration of the Mt. Vernon schools.

Such recommendations as Professor Winslow's, also fail to take into consideration the effect on ventilation practice, of the general adoption of unilateral lighting for school classrooms, and the effect of a general improvement in building construction, forced by advancing fuel costs, to decrease air flow through them.

Certain Texas school authorities recognize the above limitations by building only four-room school buildings, and making what would be otherwise a blank outside wall in each classroom, a louvred opening that permits free air flow, but that excludes the light. This is a true application of what Professor Winslow and his fellow thinkers are advising. But it is entirely different from the ordinary conception of window ventilation.

Any consideration of the question from a statistical basis, as Dr. McLure has considered it, or from a basis of fuel economy, or economy in any other line, as most authorities want to consider this vital question, blinds perception to the really vital process that school ventilation is. There is so little real conception anywhere today of the really vital process that school ventilation is, that our present school ventilation practice may be likened to our water supply practice, when attention was fixed solely on the means to supply water and its cost, regardless of the quality of what was supplied

(Concluded on Page 96)

"Foster the inherent love of the Beautiful"

—Vogel

"THE first duty of all who come in contact with the growing child, is to foster his inherent love of the beautiful," said President William H. Vogel in his address before the Western Arts Association.

"I believe that the principles of Art can be intelligibly presented to the understanding of the ordinary individual, so that he may see their application to the affairs of his occupation, in business, his profession, and his home -- that art is about to take its place as a teachable and demonstrable science, possessing a quality that is inherently divine." - Bonnie E. Snow, "My New Art Creed."

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Says another: "The efficiency of administrative force would be cut to less than one half if we were without the automobile. And another: "I can now be a supervisor of schools instead of roads. I formerly spent much of my time on the road with a horse and buggy."

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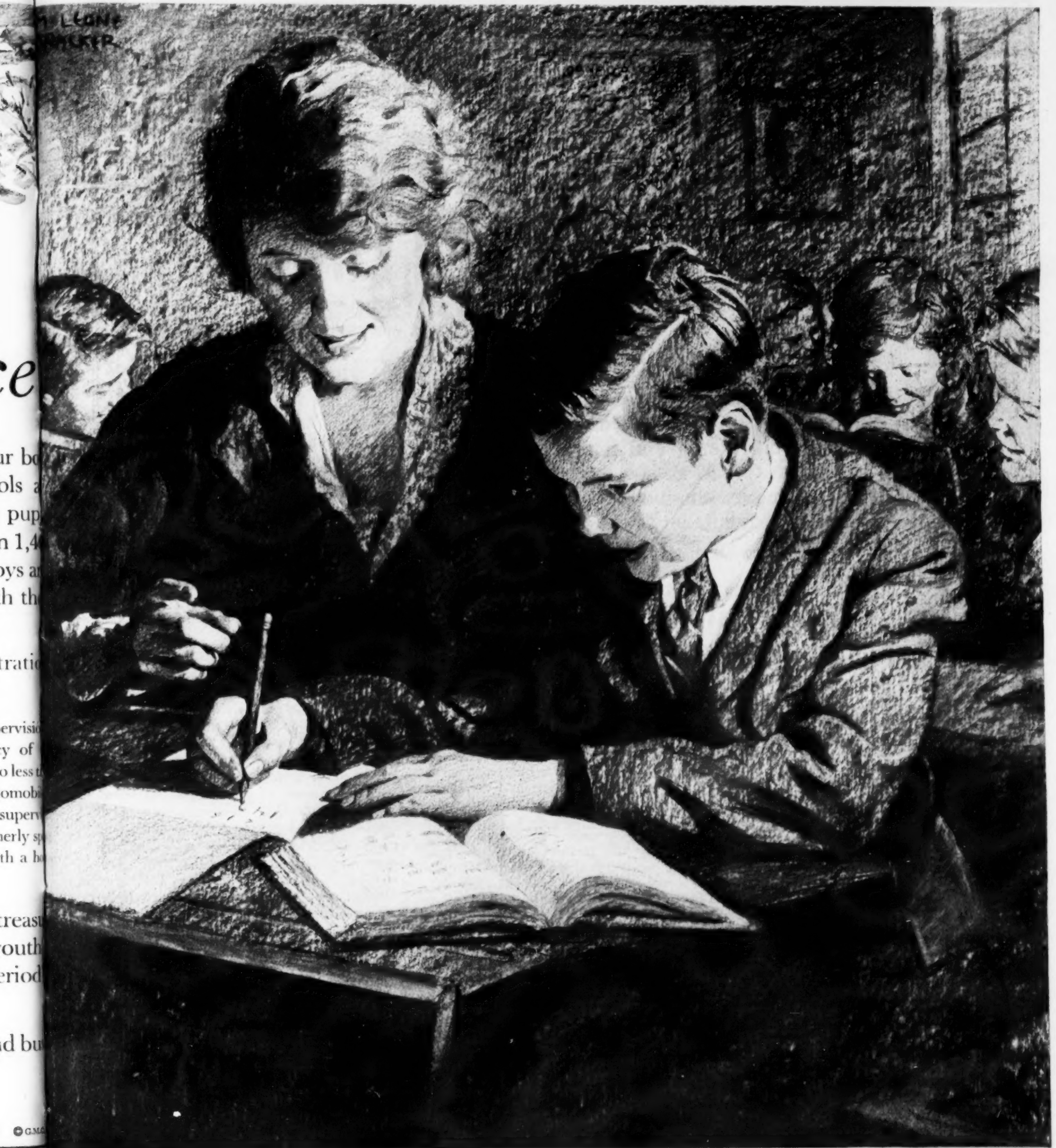
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CATALOG ON REQUEST

(Concluded From Page 92)

and its ultimate effect on the health of those supplied.

It should clarify the matter considerably for everyone concerned, to ask what ventilation is, reduced to its simplest terms. The answer proposed to this question is, "that ventilation is simply the maintenance of the same air conditions inside a building as exist outside it, with just enough heat added for comfort, so that the occupants will be provided with the same atmospheric conditions as if they were out of doors, yet be comfortable as to temperature and absence of drafts."

Pupils live in the atmosphere surrounding school buildings at least three times the number of hours per day that they spend in school classrooms, so that any attempt to improve the atmosphere of classrooms, beyond the state of purity of the atmosphere surrounding the buildings, is beyond the function of school authorities. If they can keep the atmosphere within the classrooms at least in an approximate state of the purity of the outdoor atmosphere, without drafts and with just enough warmth added to keep everyone comfortable, the purpose of school ventilation has been accomplished, provided that everyone within the building, instead of a favored few, gets his full share of the out of door air. If this means anything, it means something more than merely blowing any measured volume of air into a classroom.

It will be apparent at once that when the teacher's time is used to bring about this condition, a proper charge for this time makes this kind of ventilation the most expensive known. Approximately eighty per cent of the cost of operating schools, goes for teachers' salaries. Less than sixteen per cent goes for fuel, light and janitors' wages. The same attention paid to training school janitors, and to inculcating true principles of design into ventilation engin-

ers, would effect such economies in heating costs as to afford the best ventilation known at no increased operating cost over present heating practice.

When the time that adjustment of windows and regulation of heat requires is properly estimated and charged for at teaching rates, assuming that teachers could be trained to so overcome their natural human tendencies as to devote enough time from their regular work, for the purpose of providing adequate ventilation and on the further consideration that winds do not always blow in the desired direction, it will be apparent that mechanical ventilation, automatically controlled, is the least expensive, and the only certain means to secure the requisite air movement. But, if by mechanical ventilation is meant the engineer's past idea of mechanical ventilation, then the result will fall as short of expectations as it has always fallen.

A proper understanding of the principles of ventilation among engineers, would enable them to quickly refute such claims for economy as professor Winslow and Dr. McLure have advanced, for what they urge. The attached tabulation of fuel results from a winter's operation of five school buildings in Creston, Iowa, is sufficient evidence to warrant this statement. There is an abundance of other supporting evidence. When engineers properly understand and apply the principles of heating, enough economies will result to enable any school organization to enjoy the very real benefits of mechanical ventilation, without materially increasing fuel costs. But to deliver these very real results, the engineers must bring their conceptions of mechanical ventilation principles as fully up to date, as they will have to improve their understanding of heating principles, to attain the much desired economies.

DATA ON HEATING AND VENTILATING CRESTON, IOWA, SCHOOLS.

March 11th, 1925.

School	No. Pupils Approx.	Equiv. Rooms Estimated	No.	Boiler Type	Rating	Coal Tons per year	Burned Tons per room per year
High School				Kewanee, Brick Set			
Split Central Fan				No. 13.....	5500 sq. ft.	140	10
Irving School				Kewanee, Brick Set			
Univents	300	12	1	No. 113, Down Draft	6500 sq. ft.	110	9
No direct radiation.							
Franklin School				Ideal, 36-7			
Gravity Indirect Ven-				3150 sq. ft. each.....	6300 sq. ft.	40	14
tilation	300	10	2				
Lincoln School				Ideal, 366.....	2625 sq. ft.	100	11
Window Ventilation...	300	9	1	Cornell, 942			
Jefferson School				J. H. McLain Co.,	5000 sq. ft.	100	8 1/2
Window Ventilation...	300	12	1	(estimated)			

COMPARISON ELECTRIC CURRENT COSTS, UNIVENTS AND CENTRAL FAN.

Irving School		High School	
5 H. P. Motor Generator Set		10 H. P. Motor—Central Fan	
11 Univents over 100,000 C. F. A. M.		Less than 10,000 C. F. A. M.	
September	12 Kilowatt Hours	14 Kilowatt Hours	
October	17 Kilowatt Hours	33 Kilowatt Hours	
November	94 Kilowatt Hours	265 Kilowatt Hours	
December	373 Kilowatt Hours	1226 Kilowatt Hours	
January	419 Kilowatt Hours	1215 Kilowatt Hours	
February	479 Kilowatt Hours	1427 Kilowatt Hours	
	1307 Kilowatt Hours	4175 Kilowatt Hours	

Univent power is approximately one-third the cost of central fan power in quantity. Actual money cost, however, does not show the difference because increased quantity of power used at High School lowers the rate.

\$250,000.00

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*F*OR more than a quarter century we have worked day in and day out with many thousands of boys.

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For the consummation of this plan we pledge an initial investment of \$250,000.00 exclusively for loans toward the necessary college expenses of boys of sterling worth.

To every boy who qualifies we will loan needed amounts up to \$1500.00 until the total of \$250,000.00 is usefully at work. The security for each loan will be the boy's character as developed in his home, in his school and in his work with us.

In the past, under the guidance of local Curtis counselors and adults associated with the work, our boys have earned substantially by delivering the Curtis publications. Far more important, by securing their own customers they have developed in character, self-reliance and ability. Many leading employers have given pre-

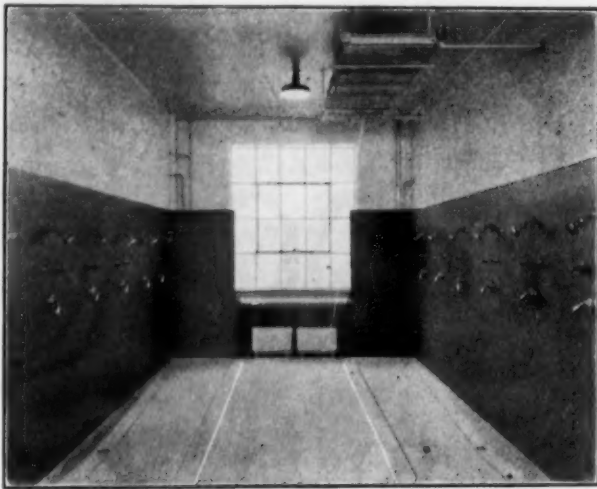
ferred consideration to Curtis-trained boys, and today hundreds of our former boys hold responsible executive positions.

And now for boys anywhere in the United States we add this widening of educational opportunity which in its scope and influence is as broad as the country. Every parent, educator or business man who has at heart the future of any boy of grammar school age, will wish to become acquainted with the Plan.

Upon request an outline of the Curtis College Loan Plan will be sent to any boy or to anyone interested in a boy's future.

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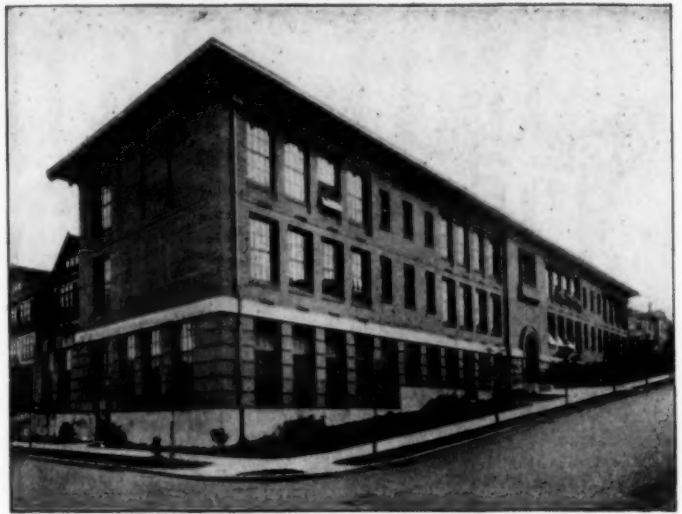
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NEWS OF THE SCHOOL BOARDS

BOSTON REFORMS SUPPLY PURCHASING METHODS

The purchase of school supplies for the city of Boston has undergone radical changes in the direction of economy and efficiency, following changes introduced by Mr. Alexander M. Sullivan, business agent of the school committee.

In January, 1925, the school committee approved recommendations of Mr. Sullivan for reorganizing his office and that of the "supply room," which is a department of the schools charged with the duty of buying, storing, distributing all supplies, books and teaching materials used in the school system. The business agent is responsible for the work of the "supply room" as well as of his own office.

In reorganizing the work under the direction of the business agent, the best method of control was found to be the titling and assigning of employees qualified by training and experience to assume the supervision of the work in its various phases. For this purpose new ranks were created and capable assistants assigned to them. These employees are responsible to the business agent and to the assistant business agent for the accuracy and prompt completion of the work. The chief officials in the "supply room" are the chief storekeeper, the assistant chief storekeeper, the receiver, and the chauffeur-mechanic. Under each of these men is a corps of employees.

During the past year the purchase of supplies and equipment on the basis of lump sum bids, without regard to detailed costs of the various items involved, was eliminated. Detailed costs were obtained with all bids for supplies, etc., and the right to accept all or part of any bid was reserved. Awards were made to the lowest responsible bidders for the items in which they specialized and on which they offered quotations.

Writing in his annual report, Mr. Sullivan says: "Lump sum bidding, without giving information to show the costs of the various items, stifles real competition and is economically indefensible.

"Even where business is to be awarded to one

bidder for several items made of the same material, detailed costs should always be required at the time bids are submitted; the absence of such costs can be severely criticized. In the final analysis, detailed costs are much more important in purchase procedure than they are in accounting procedure, although necessary for both."

In inviting proposals for paper so that dealers might bid on various items or groups of the same material, it was found in making awards that a twelve per cent saving was effected by awarding the business to responsible bidders, for the groups of items on which they bid low in accordance with specifications. Previously the business had gone to a single bidder for several years, on the basis of a lump sum bid. Similarly, on purchases of lumber, hardware, and other items of supplies and equipment, substantial sums were saved by following the method referred to in the purchase of paper.

The savings involved by careful purchase procedure and the awarding of bids on the basis of detailed costs of the various items, over the former methods of lump sum bidding without regard to detailed costs, ranged from ten to 35 per cent.

The experience of Mr. Sullivan and his associates in buying paper will illustrate the effort made in handling all purchases on a basis of economy. Specifications previously used in connection with the purchase of paper were carefully edited and it was found that a considerable saving could be made by reducing the weight of many of the items which were entirely too heavy for the purposes for which they were intended.

Ordinary cap and writing paper had been purchased for some time in a weight of substance 24-pound folio. At one time a 28-pound folio was used. "It can readily be determined," says Mr. Sullivan, "that the use of this weight of paper was uneconomical, when it was realized that a paper of a substance 20-pound folio is sufficiently heavy for the use to which it is put in the schools.

"The weight of the paper known as better quality writing paper was reduced from substance 28-pound folio to substance 24-pound folio. Some other reductions were also made. Chemists acting in an advisory capacity to the business agent, and the committee on paper, concurred in the weight reductions.

"In the purchase of paper, as in the purchase of other supplies, the use to which the material is to be put is taken into consideration in the interests of economy. For instance, a heavy weight of a good quality paper, which eventually finds its way into waste baskets, should not be purchased."

The result of these changes and improvements has been a substantial saving by which the Boston schools are afforded an opportunity of getting greater service from their per capita allowances for supplies and equipment.

CLAIM TRUANT OFFICERS WORTH MILLIONS

The research department of the Illinois State Teachers' Association recently completed a study of the financial benefit of having county attendance officers. A total of 101 down-state counties were considered in the investigation. The counties which employ full-time county truant officers, who are assistant county superintendents, show an average percentage of perfect attendance five per cent higher than those counties which are without county truant officers.

If there were no county truant officers in the 101 counties, it could be easily determined that the wastage through poor attendance would amount to a few million dollars annually, viewed from the standpoint of wastage in school expenditures alone; that is, the taxpayers would be paying out money for schools from which children through poor attendance would lose five per cent of the benefit. Five per cent of the current school expenditures only for the 101 counties, amounts to more than \$2,000,000 each year. It appears a good economic investment when a county employs a full-time county truant officer in order to prevent the loss through poor attendance of several thousand dollars annually.

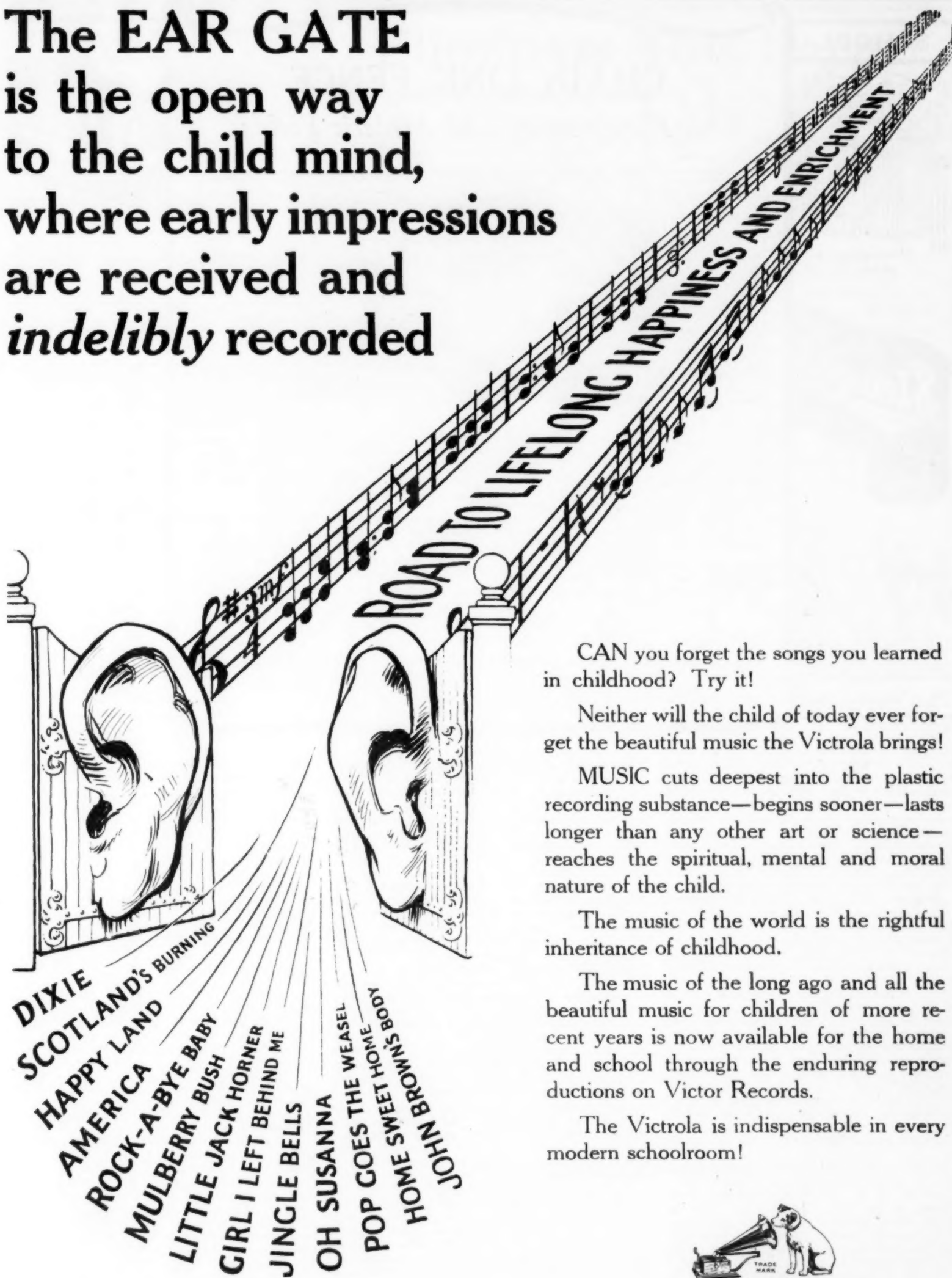
AMONG BOARDS OF EDUCATION

William Allen White, the famous Kansas editor, in a recent editorial discussed the services rendered by school boards. He asks:

"And for what? For money? No! For Glory? Scarcely; for there is no glory in being a member of the school board. For what? Chiefly for the love of the work, and for what it will do for the world. The best work in the world is done in the joy of the job, and without

(Continued on Page 100)

The EAR GATE
 is the open way
 to the child mind,
 where early impressions
 are received and
indelibly recorded



CAN you forget the songs you learned in childhood? Try it!

Neither will the child of today ever forget the beautiful music the Victrola brings!

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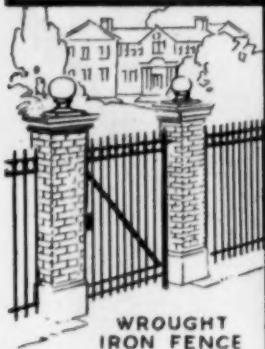
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heavy construction as required for its heavy duty service. Where a tennis or basketball court back-stop forms part of the fence line it is well to build it integral with the fence, and of the same materials.

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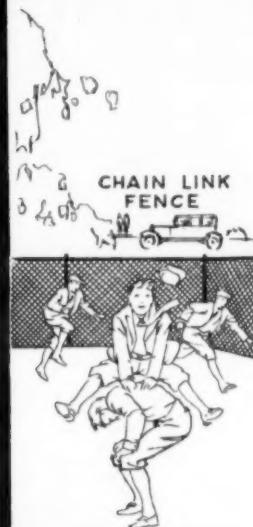
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PRODUCT PLUS SERVICE



ENCLOSURES

(Continued From Page 98)

thought of reward. Some of it may be misdirected. Much of it never shows up in the balance sheet of progress; but it is the contribution of consecrated men and women to the betterment of the world. In the end this service one way or another with all its lost motion, does move the world. Always the best work of the world is the unpaid work from 6:30 to 12:15."

—The entire school board of Fredericktown, Mo., composed of William Gudger, Roy Roberts, Dr. Higdon, John Mills, Clarence Crow and Joseph Butterick has resigned. The recent bond issue election provided for two new schools but not for school sites. The local attorneys and the state superintendent do not find that the school board can legally invest any of the money in sites. A statement issued by the retiring board members reads:

"Since the people at this election voted a lack of confidence in the ability of the school board to handle the situation, we are perfectly willing, through respect to the voters, to turn the whole matter over to those who got the district into this deplorable and unnecessary tangle and who would have us believe that they know all about the building and management of schools, and let them untangle it and demonstrate that they can do what the people have been promised can be done."

It has become the duty of County Superintendent Grover M. Cozean to appoint a new board.

—Syracuse, N. Y. Mayor Walrath has placed the blame for inability of the city to obtain delivery of school supplies, materials, and equipment on the local board of education. The situation is the result of a controversy over a ruling on city purchases made last March. At that time the board of education was ordered by the city to make its purchases through the board of contract and supply. The educational department appealed from the ruling to the state educational authorities, with the result that requisitions for supplies were delayed to such an extent that delivery could not be made in time for the opening date.

—Wichita, Kans. The school board has rescinded an order closing the Allison school for

repairs, following an inspection of the building by the city building inspector, the local association of architects, and the master builders' association. The board has decided to employ an engineering firm to check up on all the buildings recently erected. The trouble has been traced to an alarmist report of a faulty condition of the construction work, which proved to be without foundation.

—Indianapolis, Ind. A city-wide organization has been formed to support the movement to elect five members of the school board who have been approved by the citizens' school committee. The approved candidates to date are Edward Harris, Carl S. Wagner, Mrs. John W. Moore, Fred B. Johnson, and Charles R. Yoke.

—The case of Oliver H. Toothaker vs. the school board of Rockland, Mass., has been taken before the Supreme Court of Massachusetts. Mr. Toothaker was dismissed by the Rockland school board as superintendent of schools, and he immediately applied for a writ of mandamus to prevent his dismissal, asking for reinstatement and preventing the committee from appointing another man to the position.

—Cleveland, O. The school board is faced with a peculiar problem. The board had estimated an increase of 2,500 pupils and the opening date revealed only 453 additional pupils. Twenty additional teachers taken on for the new term will about fill the vacancies of those resigning, in the opinion of board members.

—Syracuse, N. Y. The school board has created two classes of school supervisory officials. Five former supervisors were named directors of departments at \$4,250 a year and three others were classified as supervisors. Among those placed in the director's class were Donald M. Kidd, director of industrial education, and C. L. Hewitt, supervisor of adult education. Three supervisors were appointed at \$3,500 a year, and two assistant supervisors at \$3,000 a year. Salary increases were given to ten officials under the new pay schedule.

—Omaha, Neb. The local chamber of commerce is supporting a movement to encourage the employment of a school business manager.

The plan is being opposed by those who fear that it will create new problems for solution.

—Kittanning, Pa. Court proceedings have been begun in East Franklin township for the removal of the school directors. The directors are charged with failure and refusal to provide sufficient and suitable accommodations for school children in the township.

—Buffalo, Mo. A school attendance officer has been employed to look after delinquent children of the district. Under the state school law, every child must attend school the entire term each year.

—Dubuque, Ia. The school board, in meeting assembled, defeated a resolution seeking to restore full administrative authority to Supt. O. P. Flower.

—Superior, Wis. The school board has proposed a reorganization of the administration and rules of the board. The plan eliminates the standing committees and gives the superintendent power to "hire and fire" employees of the schools.

—Binghamton, N. Y. The school board has proposed the removal of the executive offices to one of the school buildings. The building offers adequate space for store rooms, clinics and other branches of school work.

—Prof. Fred Engelhardt of the University of Minnesota, assisted by Prof. N. L. Engelhardt and Dr. G. D. Strayer of Teachers College, Columbia University, recently presented their report on the survey of the Superior, Wis., school system. Changing the method of selecting school board members was one of the seventeen recommendations made by the survey experts. Under a plan proposed by the survey committee, the school board would consist of seven members elected at large, and representing the city instead of wards. All standing committees would be eliminated.

Other major recommendations related to the formation of an adequate building program; reduction of the financial system of unit costs through establishment of budget and cost accounting systems; creation of an assistant superintendent's position to have charge of the business activities; to enlarge the functions of

(Continued on Page 103)

Two Ways to Eliminate This Danger

CEILINGS plastered on wood lath are dangerous. Eventually they are certain to crack and probably will fall. Some school room ceilings represent tons of dead weight in plaster alone. Would you want to let your children run the risk of being struck by a rough, heavy mass of hard plaster?

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Plastering on Metal Lath is crackproof. A permanent bond is formed between metal lath and plaster. Such ceilings and walls won't loosen and drop off. Then too, they are firesafe—another exceedingly important reason why you should insist on having every room in your schools remade with Metal Lath if it is not already in the walls and ceilings.

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(Continued From Page 100)

the superintendent and to safeguard future expenditures for school buildings and additions by submission of the architectural plans to competent educational advisers.

The survey recommended also the enlargement of the medical and health department, the purchase of additional land for schools, and the reorganization and classifying of elementary school students. The report urged reduction of the present seven junior high school departments to three schools.

Improvement of sanitary and safety conditions in old buildings will be gained by a city-wide maintenance program, under the recommendations of the survey report.

A major part of the building program, it is pointed out, will be effected without greatly increased costs. A system of retiring the indebtedness of the school board was urged in order to permit of expenditures as the occasion arises. The present indebtedness of the schools is at the maximum permitted under the law. It was pointed out that the only way to obtain funds is to set aside a part of the tax levy each year toward meeting the bonds.

—St. Louis, Mo. Following a vigorous debate, the board of education has adopted a report of its special committee on the type of building adaptable for deaf and dumb pupils. The building to be erected will be one of the finest in the country, as it will incorporate in its construction, many of the best features in buildings visited by the special committee.

The board also passed a resolution giving authority to the superintendent to promote and demote assistant superintendents at his discretion. The period of tenure, formerly set at two years, has been eliminated.

—The Knights of Columbus have filed impeachment proceedings against the directors of three Colorado school districts charging unfair discrimination against Catholic women school teachers.

—Omaha, Neb. Committees from the chamber of commerce and the local real estate board have urged that the board of education employ a business manager having the power of a co-ordinate officer. The new official would have charge and control of all purchases, the making of contracts and leases, the condemnation of

sites, the erection, construction, alteration and repair of school buildings. He would prepare a budget of school expenditures and see to it that the budget is not exceeded within the year, and he would prepare reports which inform the board from time to time as to the cost of various activities.

—Elgin, Ill. The board of education has taken steps to curtail the athletic activities of the schools. The change is due to the fact that athletics have assumed too much importance and have detracted from the chief purpose of the schools.

—The school board of Indianapolis has begun a study of the high school cafeterias with a view of assuming the entire control. School board control of the cafeterias in place of private management was urged on the ground that the lunchrooms have become sufficiently important to demand board management.

Under the present plan, the three lunchrooms are operated separately by faculty representatives, headed by the principals. The lunchrooms feed more than 8,000 pupils and are operated at a slight profit each year.

—Defiance, O. Numerous errors have been charged against school boards and clerks of boards in Defiance County by R. M. Baker and Rosabel Loney, state examiners of the bureau of inspection and supervision of public officers. In the report, erring school officials were rapped sharply, though no wrong-doing was charged against any member of city, township, or village board.

The failure of certain banks holding school funds to pay interest on the funds revealed that almost \$4,500 were past due; employment of school board members or their families for work on school buildings and sale of materials by board members to the schools, both illegal; failure to organize local boards and to hold regular meetings, and failure to file bills for money spent from school funds, were criticized in many of the school districts.

It was found that certain firms had sold to the board supplies and coal, and that certain members on the board were represented in the firms in violation of the law.

In some cases, the minutes of the board were found to be worthless because they were not

properly prepared, or because they were not signed or approved.

—Twin Falls, Ida. The school board has fixed the high school tuition fee at \$9.25 a month, the Junior high school at \$7, and the elementary school at \$6 a month.

—Safety measures for the protection of school children have been proposed at Indianapolis, as a result of a conference of the chief of police and the business manager of the schools. Among the safety measures agreed upon are the assignment of school janitors as special policemen, the installation of warning signs near schools, and the marking off of safety zones on pavements in outlying districts where sidewalks are absent.

—New York, N. Y. An extension of the age limit for retirement from 70 to 80 years, for officials and employees of the department of education has been recommended by the New York City board of retirement. An amendment of the rules is proposed to permit employees to continue in the service for two-year periods, if physically and mentally able to do so.

—The Kay County, Oklahoma, district court has been asked to decide the question whether or not a rural school board has authority to contract for school supplies and for work to be done before the annual budget is approved.

The controversy arose when the school board of Uncas, a consolidated district, ordered some primary seats and two furnaces early in July. These were delivered. Other members of the board ordered certain work to be done to comply with instructions from the fire marshal's office. Later, when bills were presented, payment was refused by the clerk, and on the advice of the county superintendent, the matter was taken into court for settlement.

—The school board of Dayton, O., has moved the offices of the administrative department to the third floor of the Ludlow building. The new headquarters provide rooms for the superintendent of schools, the clerk and other executive offices. The rooms formerly used by the department will be turned over to the supervisors.

—Chicago, Ill. The school board is about to try out a new plan for paying engineer custodians of the schools on a salary basis. At present, the engineers are given contracts for the cleaning of the schools on a square foot

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1119 JAY STREET, ROCHESTER, N.Y.

"Y and E"
Efficiency Desks

"Y and E" OFFICE EQUIPMENT

basis. As a rule, these jobs are regarded as plums, the largest being that at the Crane Technical High School, where the engineer receives a gross amount of \$50,000 a year. Out of the gross receipts, the engineer pays the janitor service and the remainder is his own profit.

The new plan will be given a try out in the five junior high schools to be erected by the board.

—The New York state education department has ruled that any contract entered into between the board of education in a union free school district and a superintendent of schools does not affect the statutory rights of the board to remove the superintendent at will. The ruling was made in dismissing the appeal of residents and taxpayers of district nine, Hempstead county, from the action of the board in securing the resignation of Supt. George Dubois a year before his contract expired. Although there was no question of the professional ability of Mr. Dubois, it was held that the board was within its statutory limits in making a change without a stated cause or hearing, regardless of the contract.

—Lansing, Mich. A grand jury investigation of charges made by Dr. W. K. Wilson against other members of the board of education has been requested by H. F. Hittle, prosecuting attorney. Dr. Wilson charged that two members had benefited through real estate deals involving the acquirement of school sites.

—Cleveland, O. The board of education has recently been criticised for its present policy under which the board considers the "chaff and bunk" and leaves to the superintendent the sole determination of educational problems. One member criticised the superintendent for establishing an over-age school for boys and similar classes for girls without consulting the board.

—Kenosha, Wis. The citizens voted on September 29th on the question of a small school board. The local board had previously gone on record in favor of a reduction in the number of its members.

—New Haven, Conn. The local building trades council has presented a petition to the school board asking that the closed shop rule be put in force on all school buildings erected in the future. The purpose of the ruling is to limit work on the buildings to regular union men in the several trades represented.

The Boy Scouts of America anticipate during the next twelve months a need for three hundred men to serve as full-time, paid executives and assistant executives in connection with the operation of first-class councils now operating and new councils to be organized during the year.

To meet this need, a series of intensive training courses is planned to equip a number of workers for effective leadership in local scout council activities in various parts of the country.

The first course which opened on October 24th is being conducted in cooperation with Teachers' College, of Columbia University. It is restricted to men with educational qualifications and gen-

eral aptitude such as will reasonably assure success in this particular field.

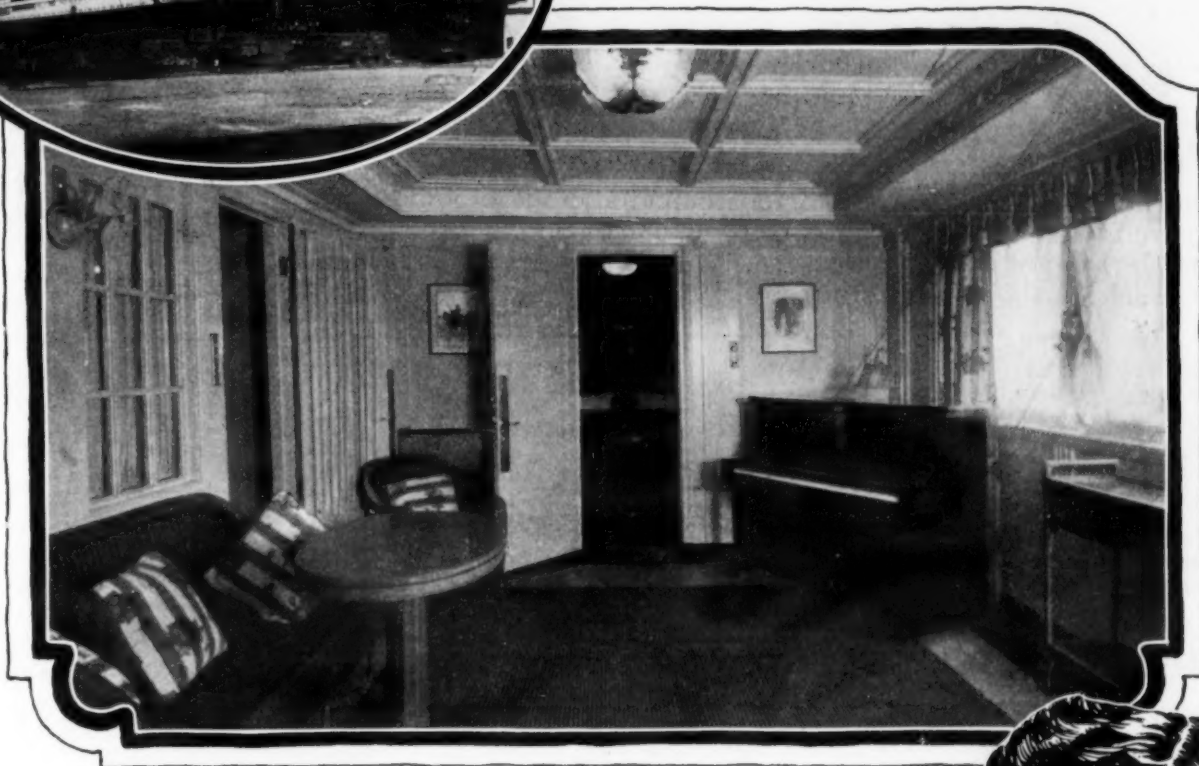
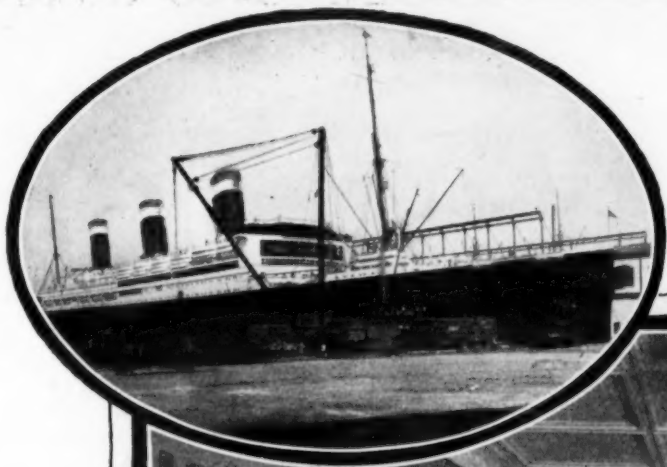
—J. Freeman Guy, formerly director of research and measurement in the Pittsburgh, Pa., schools, is the new superintendent at Bellevue.

—Dr. Samuel W. Miller has resigned as president of the board of education of Logan Township, Pa. Dr. Miller has been serving a six-year term and had four years to serve.

—Rev. J. H. Umbenhen, president of the school board at Pottsville, Pa., died at his home in that city on September 22nd, following a stroke of apoplexy. Rev. Umbenhen had served as a member of the board for ten years.



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NEW RULES

RULES FOR JANITORS

—Philadelphia, Pa. The school board has adopted an amendment to its rules governing the service of engineers, firemen, janitors, cleaners and watchmen. The rules are as follows:

12. Engineers, firemen, janitors, cleaners, and watchmen shall not absent themselves from duty without securing a leave of absence from the Superintendent of Buildings. Such leave must be secured before the absence occurs, unless the circumstances are such as to render advance approval impossible. For all absence there shall be a full deduction of salary, except in those cases for which special provision is hereinafter made.

13. Leave of absence for 15 consecutive days may be granted between July 1st and August 31st of each year, provided the applicant furnishes, at his own expense, a competent person to be in charge of the building continuously between the hours of 8:00 A. M. and 5:00 P. M. every working day during the absence, such person to be approved by the Superintendent of Buildings.

14. For absence due to personal illness there shall be a deduction of 1/30th of the monthly salary for each of the first three days, and 1/60th of the monthly salary for each day thereafter. If said absence exceeds three consecutive school days, the application must be accompanied by a physician's certificate, stating the nature of the illness and must not extend beyond thirty consecutive days unless authorized by the Board; provided, however, that leave shall not extend beyond one year.

15. For absence due to the death of the husband, wife, son, daughter, father, mother, brother, sister, grandfather, or grandmother of the absentee, or by the death of an uncle, aunt, nephew, niece, or first cousin, whose actual place of residence at the time of death is also the

residence of the absentee, said facts to be duly certified by the physician in attendance during the last illness of the decedent or otherwise proved, the applicant may be relieved from loss of salary for the period intervening between the death and the funeral, but in no event exceeding five days, including Saturday and Sunday, if those days so intervene; provided that absence in excess of the time so stated, but not in excess of five additional school days, caused by a delayed funeral, shall be subject to a deduction of 1/60th of the monthly salary for each school day's absence. For absence not exceeding one school day due to attendance at the funeral of any relative where relief from loss of salary is not provided for, there shall be a deduction at the rate of 1/60th of the monthly salary.

16. For absence due to religious holidays there shall be a deduction of 1/45th of the monthly salary for each day's absence.

For absence not exceeding five school days in any school year, due to causes not specified in this rule, but of such nature as to warrant partial relief from loss of salary, there shall be a deduction of 1/45th from the monthly salary for each such day's absence.

For absence due to quarantine or subpoena to court, when properly certified, there shall be no deduction.

17. The Superintendent of Buildings shall have the power to grant leave of absence without loss of salary to applicants for school business, subject to such conditions as he may consider advisable.

18. In computing deductions of salary, the monthly personal salary, as authorized by the Board, shall be the basis for calculation of deductions.

19. In computing deductions in salary, any absence shall be counted as not less than one-half day. Saturdays, Sundays, and holidays shall be included in the deductions.

RULES FOR USE OF AUDITORIUM

—The school board of Yoakum, Tex., has adopted rules and regulations governing the general use of the high school auditorium. The rules are as follows:

(1) It is the purpose of the school board to permit the general public to have the advantage of the use of the auditorium, considering it in

a measure a city auditorium as well as a school auditorium. With this in mind it decided that the public should have the free use of the auditorium for meetings of general interest to the public and local in their nature. Educational and entertainment programs put on by the civic organizations of the town without admission charge will be granted free use of the building.

(2) For plays and entertainments put on by organizations of Yoakum where an admission is charged a fee of twenty-five dollars will be charged.

(3) For political meetings sponsoring the interest of individual candidates a fee of ten dollars will be charged.

(4) For recitals given by music teachers, expression teachers, etc., no charge will be made for the use of the hall if no admission is charged. In case of admission charges the fee will be twenty-five dollars or one-half of the proceeds.

(5) Basket ball and athletic teams can secure the use of the building for the cost of the lights and fifteen dollars per month.

(6) The building was placed in charge of Superintendent L. B. McGuffin. Anyone desiring the building should see him.

It is not the purpose of the board to maintain the use of the auditorium as a commercial proposition. Commercial shows will not be granted the use of the building. The purpose of the fee is to pay the expense of maintaining the auditorium, such as lights, janitor, etc.

—Worcester, Mass. The school board has revised its rules governing janitors. The revised rules now read as follows:

Janitors of schoolhouses are paid by contract, said contract depending upon the size of the building, etc., but, for the purposes of the following allowances of sick benefits and for the purposes of present or possible pension legislation, no janitor shall be regarded as receiving payments of more than \$40.00 per week for personal services.

Janitors, who, on account of personal illness, are necessarily absent from their schoolhouses shall be paid portions of their regular payments for day school work during such absence as follows, unless such regular payments exceed \$40.00 per week, in which case the allowance shall be based on a payment of \$40.00 per week.

Kewaunee

Superior

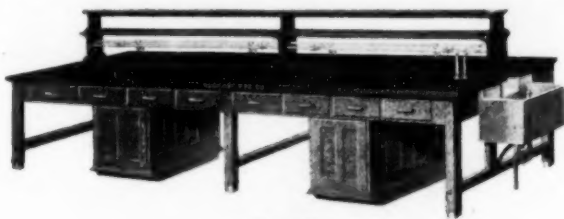
LABORATORY FURNITURE



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PHYSICS LABORATORY TABLE

Very popular with teachers. Very substantially built. Can be supplied, if desired, with lower cupboard and drawers.



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CHEMICAL TABLE

For the laboratory where floor space is ample and classes not too large. Accommodates 16 students in two sections.



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For laboratories where it is desirable to have students all face one way. This table accommodates two students.



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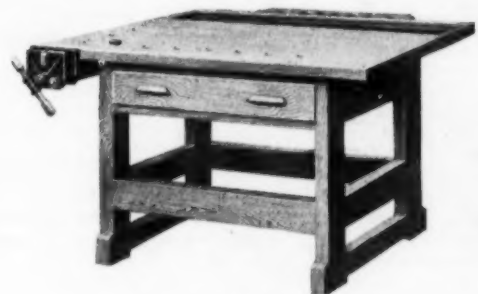
A necessary article for the kindergarten. Very rigid and will stand hard wear.



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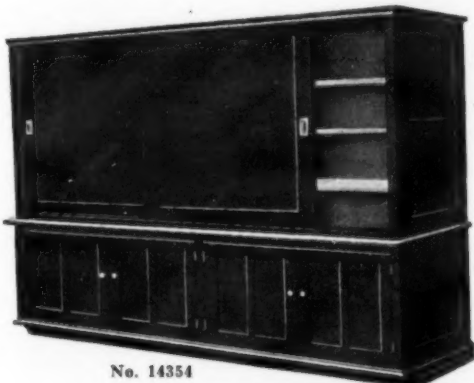
For two students. One drawer and one cupboard for each; larger drawer used in common. This is a very practical desk.



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A desk for individual use. Equipped with all-steel non-breakable vise.



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A very practical case. The two sliding Hyloplate doors make a very fine blackboard.



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ELECTRICAL DESK

Accommodates 8 students working in sections of four. Each student has one small drawer exclusively. The top tier of drawers and the cupboards are used in common. A two-gang set of Hubbell polarized plugs and receptacles is placed at each end of desk.

Just a Few Desks out of 500 or More

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SPEED

The kitchen of the Rye Country Day School is equipped with one No. 1704 VULCAN Range, one No. 873 Range, and one No. 797 Salamander Broiler. Installation by L. Barth & Sons, N.Y.C.



How Fast Can You Handle That Lunch-Hour Rush?

LUNCH hour is rush hour. Everybody is anxious to get finished—to have as many precious minutes as possible before going back to classes. You can handle that "in-a-hurry" crowd quickly, efficiently and economically with VULCAN [Pat'd.] Economy Hot-Top Gas Ranges.

VULCANS are the fastest cooking gas ranges in the world. One chef writes us: "I can boil 40 gallons of soup in 45 minutes—any other range would take two hours. It is the fastest range I have used in my 28 years of experience."

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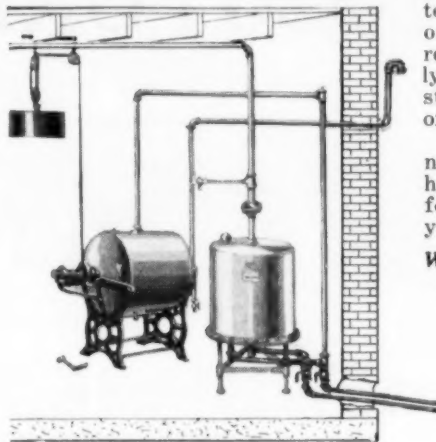
Educational institutions requiring gas, for Laboratory or Domestic Science departments or for any cooking, heating or lighting purpose, can make gas of finest quality with a Detroit Combination Gas Machine.

This complete individual gas plant is compact, economical, odorless and dependable. It is built on tested engineering principles which guarantee absolute safety and satisfaction.

The installation cost is low; the operating expense is no greater than the cheapest City gas; there is no maintenance cost. Operation is automatic, requiring little or no attention; the regulator is permanently set, assuring the constant production of gas of uniform quality.

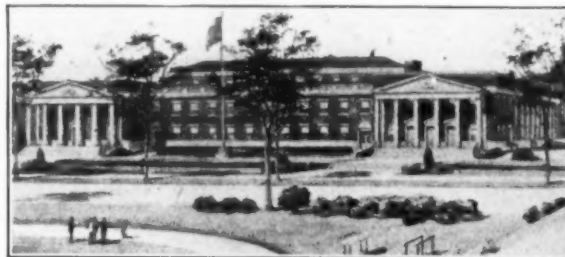
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Orange High School, Orange, N. J.
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"Complete Service" Since 1852!

WE ARE ESPECIALLY PROUD of our complete installation of DOUGHERTY'S "SUPERIOR" CAFETERIA AND KITCHEN EQUIPMENT in the new Orange High School. Here we furnished everything from the cafeteria counter to the utensils in the kitchen! Why not let us equip your school too?

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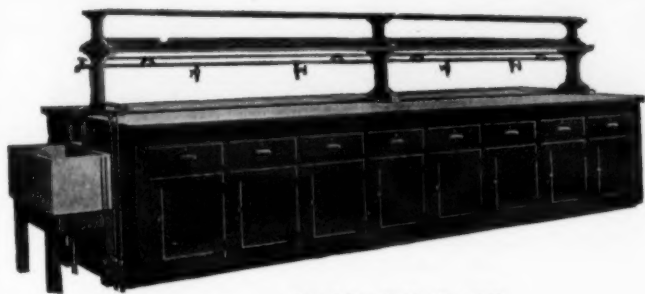
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Chemistry Table No. 940.



Students' Domestic Science Table No. 1412

CHICAGO CORRESPONDENCE

Colonel Edward B. Ellicott, president of the Chicago Board of Education, gave out an interview in which he stated that he will submit to the voters the proposition of authorizing an increase in the educational fund tax levy from \$1.92 per \$100 of assessed valuation to \$2.92. Under the Illinois school law, a school board may not levy in excess of the \$1.92 rate until after a referendum by the people "at a regular or special election." President Ellicott announced that the proposition will be placed on the ballot in the regular primary election of April, 1926. If the people concur in the plan, the tax collections under the increased levy will be used (1) to enable the Board to have sufficient funds to meet its annual current expenses (at present annual expenditures are exceeding annual revenues by three or four million dollars), (2) to retire the accumulated floating indebtedness of borrowings on anticipation warrants (the Chicago school system has no bonded indebtedness, and, except for anticipation warrants issued in gradually greater amounts during the past five years, runs on a cash collection basis), and (3) to put into operation Superintendent McAndrew's new salary schedule adopted by the preceding Board but reconsidered by the present Board.

One of the Chicago newspaper reporters seized upon a chance statement of Superintendent McAndrew of Chicago to the effect that teachers might profitably wear uniforms. The Chicago papers played up the story for all it was worth, and one or two even editorialized on the matter. A leader of the teachers declared that all that would be needed to complete the picture would be a serial number worn on the sleeve of the uniform, and the teachers would become factorized automatons. The mayor was reported to have characterized the idea as "tommyrot."

Mr. McAndrews' jocund remark aroused widespread interest. Women employees of the board of education in the eight-story school administration building grasped the notion as a means of economizing on cleaners' bills and at the same time appear neat and attractive. Soon they began to appear at the school board rooms dressed in smocks of lavender, pink, green, gray and other varied colors. When a school visitor enters the Chicago board of education head-

quarters he might very well suppose that he has mistakenly got into the quarters of an artists' colony! And now some of the classroom teachers have voluntarily taken to the plan!

The Chicago School Board spends between fifty and sixty millions of dollars annually. Recently revised estimates show that the board will probably be about \$1,500,000 better off at the end of the year than was expected at the time of making the 1925 budget. Part of this sum represents savings, part increased revenues. (1) Approximately \$650,000 may be saved on teachers' salaries. This is due to the fact that few new teachers have been taken on during 1925. Instead, the size of classes has been in-

creased roughly as follows: elementary classes from 44.5 average pupils per classroom to 46; junior high, 32.5 to 37; senior high, 32 to 33. (2) \$250,000 saved in payment of interest on floating indebtedness. Last year it cost \$950,000 for interest on temporary loans. Prompter turning over of school tax collections probably account for the reduction. (3) \$200,000 saved on the purchase of coal. During the summer when bids were opened for coal contracts, the President of the Board, Colonel Edward B. Ellicott ordered them all rejected and readvertised. Coal merchants warned the Board and the public that grave danger threatened by this move. However, when the new bids were in, it was found



UNLOADING CRIPPLED CHILDREN AT THE SPALDING SCHOOL, CHICAGO.

How to keep your buildings fit

The suggestions for reducing maintenance costs that are made on this page represent the proved experience of hundreds of well-known schools all over the country.

Floors—You seldom see that concrete floors are wearing until the actual need for repairs is close at hand. The first outward sign of floor wear is silicate dust—dust that fills the air and damages lungs, clothing, and equipment. Holes, hollows, cracks and worn patches quickly follow in its wake, and then you have some repairing to do or a new floor to lay.

If you treat your floors with Lapidolith, the liquid chemical floor hardener, however, they will remain permanently dustproof and wear-proof.

Lapidolith penetrates the concrete and by chemical action changes the loose, coarse-grained particles to a fine, even, close-grained substance of crystalline formation. This substance is flint-like in its hardness. It needs no further attention for years, no matter what kind of wear it gets. Lapidolith is simple to apply. It can be flushed on either a new or an old floor, and if it is applied at night the job is complete by morning.

If your floors are of wood, do not bother with messy floor oils that merely lay the dust and have to be applied again and again. If you would

really prevent floors from rotting, splintering, and drying out, treat them with Lignophol, the preservative dressing that restores the natural oil and gum of the wood. Lignophol is non-inflammable; one application lasts for many years and keeps floors smooth, hard, and sanitary.

Painted Surfaces—Painting is one job you can't be rid of entirely, but interiors and exteriors require painting less often where Cemcoat is used. This gloss, eggshell, or flat enamel paint stays white long after other paints yellow with age. A Cemcoat interior is bright and cheerful. It can be washed over and over again, and each time the paint underneath shines forth as bright and clean as when it was applied. Cemcoat does not crack or peel, even on a brick, plaster, or concrete wall. It takes its name from the fact that it adheres tightly to these materials. It is made in white and colors for both interiors and exteriors.

Roofs—If a roof is old and worn you need not stand the expense of reroofing. Just brush on a coat of Stormtight, the thick, elastic, adhesive coating that makes an old roof as good as new.

Again and again Stormtight has saved schools the expense of laying a new roof.

Not only that, but it will stop a small leak quickly and permanently—and very often one tiny leak can cause a lot of damage. Stormtight can be applied by anyone over any roofing material. It is made in semi-liquid and plastic form, and is packed in containers holding one gallon to a barrel.

Exterior Walls—Does the interior of your buildings become damp in wet weather? Does water seep through the walls whenever it rains hard? Then you should apply Hydricide Colorless to the outside of your building.

This perfect waterproofing material penetrates the brick. It contains no paraffin and so does not run in hot weather; it collects no dust; it can be painted very easily; and best of all its presence cannot be detected on a wall. If you would have warm dry interiors and preserve the natural beauty of your walls, apply Hydricide Colorless.

Send for literature and demonstration sample on any of the above products that interest you.

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that an enormous saving was made. (4) Increased funds from rentals of School Board leased properties promise to bring in about \$250,000 additional. This year was an appraisal year for properties under long-term lease with ten-year revaluation clauses. For the past twenty years there had been no change, i. e. six per cent of the valuation set in 1905. The Board of Appraisers brought in a 100 per cent increase in the valuation. The lessees refused to pay the increase and have gone to court on a technicality. The School Board attorney thinks he has an airtight case, and meanwhile the School Board has exercised its option under the lease terms of exacting a 25 per cent penalty for delay in payment of the rent. (5) Lastly, there is a new source of revenue the amount of which is problematical. Heretofore, the interest on school tax moneys collected, but not yet turned over to the schools, has gone to the general county fund. Under the direction of school folks, the legislature was induced to enact a statute requiring that such interest be turned over to the schools. It is estimated that the schools should realize about half a million dollars a year under this law.

The Chicago teacher-training situation should interest city school boards throughout the country. The Chicago Normal College threatens to become a municipal university—in size at least. Will it follow the American tendency to evolve into a B. A. degree granting institution? Following is the growth in enrollment since 1920:

1920.....	557	1923.....	1212
1921.....	628	1924.....	1816
1922.....	688	1925.....	1925

Of the present enrollment of 1925 students, about 200 already have college degrees. There is a faculty of 87. One strange but interesting item regarding the student make-up is the fact that, although the Chicago public schools educate seventy per cent of the children and the parochial schools only thirty per cent, in the Normal College the student membership is about 50-50 as to previous schooling. This fall the Chicago school board has changed requirements from a two-year course to a three-year course.

The Chicago school board meets every other Wednesday in an afternoon session. When Superintendent McAndrew was elected, he inaugurated a novel plan of "educating" school board members as to school doings. Lamenting that board members visit the schools but infrequently, he decided to bring pupils and school work to the board members. At each meeting there is a five-minute educational talk, usually illustrated. The Superintendent, an assistant superintendent, a director, a principal or a teacher will explain a school project functioning in the schools while children are occasionally present to illustrate the talk. Following are a few of the topics presented to the board:

A recitation by deaf children conducted by their teacher.

A movie showing a fire drill reviewed by the City Fire Chief.

A lecture on evening schools and adult classes. Musical selection by a grade school harmonica orchestra.



SMOCKS FOR CHICAGO TEACHERS?

A joking remark of Supt. McAndrew has led to much publicity concerning smocks for use in the classrooms and the school board office of Chicago.

A movie showing playground activities, such as snow modelling, whittling contests, etc.

Computations in arithmetic fundamentals showing that every child is taught to prove his answer.

A beautiful display of all varieties of bird-houses.

A description of teaching handwriting, with many samples of children's work placarded about the room.

A description of art work, with the board rooms covered with student-designed and student-colored art posters.

New York Superintendents Meet

The New York Superintendents' Council held its annual meeting October 13th to 15th at Albany. Among the speakers were Dr. George D. Strayer of Teachers College, who spoke on the subject, "The Present Status of the Superintendent"; Dr. Thomas Briggs, also of Teachers College, who discussed "Unsolved Curriculum Problems"; Supt. Herbert Weet of Rochester, who took for his subject, "Curriculum Problems in the Secondary Field"; Dr. Milo Hilegas of Teachers College, who talked on "Curriculum Problems in the Elementary Field," and Supt. Daniel Kelly of Binghamton, who talked on "Practical Suggestions from the Standpoint of the Superintendent"; Dr. George M. Wiley, assistant commissioner of education for elementary schools; Dr. A. R. Brubacher, New York State College for Teachers; Ray P. Snyder, chief of the division of rural education; and Dr. A. B. Meredith, commissioner of education for Connecticut.

The sessions closed with a business meeting at which a number of important questions were taken up.

Supt. Frank Boynton of Ithaca closed the meeting with an address entitled "The Open Door."

—Annexing adjacent territory to the city of Detroit, Mich., resulted in a unique discovery. The Greenfield district had voted bonds to the extent of \$200,000, and erected a schoolhouse to accommodate six children, knowing that Detroit after annexation would have to foot the bill.



**When you buy
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The real test of school cafeteria equipment is the test of service. Sani food and drink equipment for cafeterias gives satisfactory service year after year.

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If you are planning a school cafeteria installation, write to the nearest fixture supply house or to this office, for information. Be sure to send in outline drawing showing dimensions of the room.

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Selling Organization for Marietta Manufacturing Co. and Chicago Hardware Foundry Co.

Also — the location of doors and windows, interior columns if any, and state number of persons you desire to serve at one time. We will furnish you a blue print free of charge. Write today.

PERSONAL NEWS OF SUPERINTENDENTS

—Mr. John T. Kaemmerlen has succeeded L. O. Markham as superintendent of schools at Haverstraw, N. Y. Mr. Kaemmerlen is a graduate of the Haverstraw schools and comes from the faculty of the University of Pennsylvania.

—Mr. W. L. Hunt has been elected superintendent of schools at Hoosick Falls, N. Y.

—The new superintendent at Hudson Falls is Mr. David R. Finley, who was formerly at the Oneida Intermediate School at Schenectady, N. Y. Mr. Finley is a graduate of the Genesee Normal School, and of Union College, and has had considerable experience in school work.

—Mr. H. Claude Hardy of Fairport, N. Y., has taken a larger field at Oneida. He is a graduate of Wesleyan University, and holds degrees from the University of Rochester and from Syracuse University.

—Mr. Thomas J. Coffee succeeds H. Claude Hardy at Fairport, N. Y. He is a graduate of Syracuse University and has had previous experience at Wyoming and Greigsville.

—Tributes to Dr. M. J. Michael, superintendent of schools at Kingston, N. Y., were paid on the occasion of his fiftieth anniversary of service in the schools by citizens and teachers of Kingston. Thirty years of Dr. Michael's service were spent in Kingston, fifteen of which were as principal of the Kingston Academy, and fifteen as superintendent of the city schools.

—Mr. Clifton E. Kellogg, principal of the Washington Junior High School, Rochester, N. Y., died recently at his home in that city. Mr. Kellogg was a graduate of the Ypsilanti, Mich., Normal School and had filled several principalships. He was made head of the Washington school in 1921, in which position he showed marked ability and initiative.

—Mr. Harry S. Rees has resigned as superintendent of schools at Washington C. H., O.

—Mr. Harold P. Thomas of Petersburg, Mich., has been elected director of the Bureau of Educational Guidance and Research at Springfield, Mass. Mr. Thomas is a graduate of Harvard and Colgate Universities, and holds a degree from Harvard.

—Mr. V. B. Moody of New London, Conn., has been elected superintendent of schools at Middletown, to succeed F. W. Barber.

—Miss Jessie L. DuBoc of Helena, Mont., has resigned her position as rural school supervisor to accept the position of supervisor of practice teaching in the Dillon Normal School.

—Mr. F. A. Replogle has resigned as principal of the Perley School at South Bend, Ind., in order that he may complete his studies for a doctor's degree in Northwestern University. Mr. E. E. Cook has been appointed to fill the vacancy.

—Mr. H. H. Blanchard, of Chicago Heights, Ill., has been appointed dean of boys at the high school, South Bend, Ind. Mr. Blanchard succeeds L. C. Snodgrass, who has entered the medical school of the University of Michigan.

—Dr. J. Freeman Guy, formerly director of research and measurement in the schools of Pittsburgh, Pa., has assumed his duties as head of the Bellevue public schools. Dr. Guy holds degrees given by Wooster College, Columbia University, and the University of Pittsburgh. For the last three years he has been assistant professor of education at the University.

—Mr. D. B. Kraybill has become superintendent of the Redstone Township schools at Republic, Pa. He was formerly assistant in rural education at Pennsylvania State College.

—Mr. C. S. Kniss is the new superintendent of schools at Juniata, Pa. He is a graduate of Albright College and has had considerable experience in supervisory work in public schools.

—Mr. J. M. Uhler, of East Conemaugh, Pa., has been appointed to a position on the faculty of the Indiana Normal School.

—Mr. Albert L. Rowland, formerly director of the teacher bureau of the Pennsylvania Department of Instruction, has accepted the position of superintendent of schools of Cheltenham Township. Mr. Rowland is a graduate of the college

of liberal arts of Temple University, and of the Philadelphia School of Pedagogy, and holds degrees from the University of Pennsylvania. As director of the teacher bureau, Dr. Rowland formulated the present teacher program providing for a trained teacher in every classroom.

—Mr. William H. Bristow, of Bristol, Pa., has been appointed assistant director of secondary education in the Pennsylvania Department of Public Instruction. He will have charge of the smaller secondary schools. Mr. Bristow is a graduate of the Central Missouri Teachers' College and of Columbia University, and has had a rich and successful experience in the organization and administration of school systems specializing in the development of small high schools.

—Mr. H. L. Sammons has been appointed secretary to Supt. R. G. Jones at Cleveland, O. Mr. Sammons succeeds Donald Timmons.

—Supt. O. J. Neighbors of Wabash, Ind., has been reelected for the next year, at a substantial increase in salary.

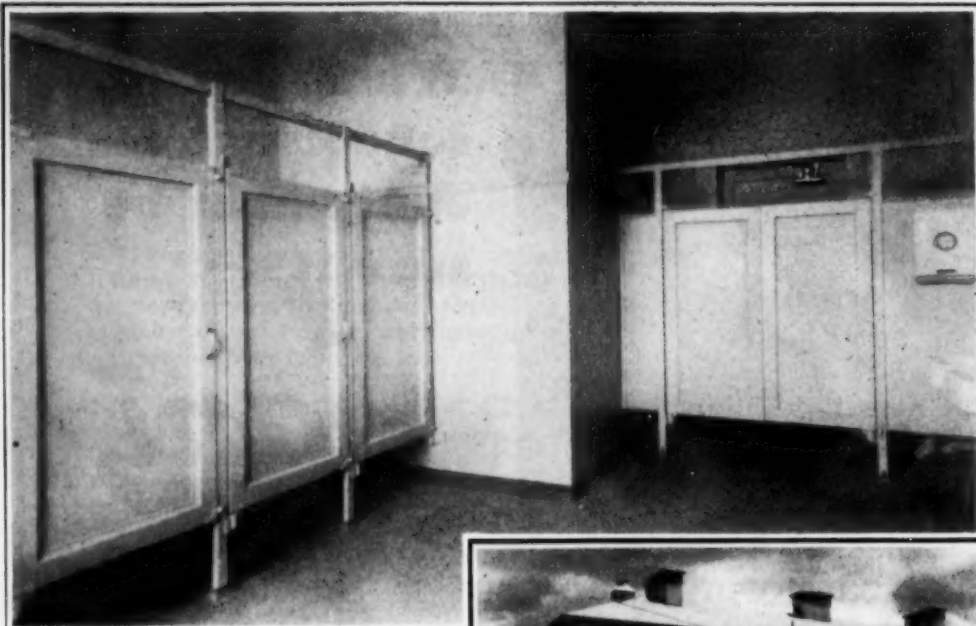
—Dr. Gordon G. Singleton, formerly superintendent of schools in several Georgia cities, has been appointed head of a new division in the Georgia Department of Education, to be known as the Department of Information and Statistics. Other appointments include that of Paul Ellison as state school supervisor, and E. A. Pound as high school supervisor.

—Charles W. Perkins, superintendent of schools at Nahant, Mass., for the last five years, has resigned to take up his new work as district superintendent in New Hampshire. Mr. H. F. Dow, superintendent of schools at Swampscott, Mass., will have charge of the Nahant schools on part time.

—Frank E. Parlin, for ten years superintendent of the Chelsea, Mass., schools, has resigned and will move to Florida.

—Tributes to Dr. Myron J. Michael, superintendent of schools at Kingston, N. Y., were paid recently in honor of his fiftieth anniversary of service. Thirty years of his service were spent in Kingston, fifteen years as principal of the Kingston Academy and fifteen as superintendent of the city schools.

—Mr. A. C. Ferguson, formerly superintendent of schools at Marlin, Tex., has accepted the



Above—A section of the WEI-STEEL equipped toilet room in the recently completed Roosevelt School, Charles M. Baker, Architect, Framingham, Mass.
Below—Exterior Roosevelt School, Framingham, Mass.



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position of dean of the faculty and professor of educational administration of the East Texas Teachers' College, Commerce, Tex.

—Charles A. Howard, superintendent of the Marshfield, Oregon, schools, will seek the Republican nomination for state superintendent to succeed J. A. Churchill who resigns to accept the presidency of the Ashland normal school.

—Dr. R. B. Ritchie, of New York, has been appointed superintendent of schools at Atlanta, Ga., at a salary of \$4,800.

—Dr. D. E. Weglein, who has been connected with the schools of Baltimore, Md., for 28 years, has been selected as the successor of Henry S. West, who resigned last spring.

—Miss Elizabeth Hutchinson, of Des Moines, has been appointed state inspector of high and grade schools of Iowa.

—Dr. James Hutchins Baker, from 1892 to 1914 president of the University of Colorado, died on September 10th at the age of 77. Dr. Baker was for seventeen years principal of the Denver high school.

—Supt. F. J. Vogltance of Colfax County, Nebraska, has converted his office into a bureau of school information for the entire county. Brief letters of information in the form of a four-page news sheet are regularly sent out from the office as a means of assisting those engaged in teaching or supervisory work in the schools of the county. Each year, previous to the opening of the school term, a series of "pre-opening" conferences are held, at which interesting questions are asked by the teachers, and the experience of many minds is given for the benefit of all.

—Supt. Paul E. Stewart, of Santa Barbara, Calif., has been reelected for four years. Mr. Stewart has filled his present position for the last six years.

—Superintendent Maddox of Saint Louis, Mo., has been reelected for four years. The Elementary School Principals' Association adopted resolutions approving the reelection and adding: "The teaching staff has been inspired to assume more and more a professional attitude. The instruction department has taken on a feeling of settled confidence in the ability and fairness

of its administrative officers. Mr. Maddox has given a distinct impetus in St. Louis to the movement for a scientific study of educational problems. Gradually, but steadily, he has led us all to take our procedures out of the realm dictated by biased or narrow opinion and guide our action after all the obtainable facts are marshalled for review.

—A. K. Loomis, former superintendent of schools at Hiawatha, Kansas, has been appointed director of curriculum research of the Denver, Colo., schools.

—Supt. W. C. Fowler of Hiawatha, Kansas, has been reelected for two years with an increase in salary. W. D. Wolfe has been made principal of both the senior and junior high schools of Hiawatha.

—Mr. F. E. Heinemann, of Dawson, Minn., has been elected superintendent of schools at Wayzata. Mr. Heinemann succeeds Erich Selke, who has become director of teacher training at Mayville, N. D.

—Mr. Roy L. Schaffer, assistant commissioner of education of New Jersey, has been made principal of the Paterson, N. J., normal school, to succeed Dr. Frank W. Smith.

—The Iowa State Teachers' Association placed itself on record as favoring the appointment of the state superintendent rather than election by popular vote.

—Dr. James H. Baker, at one time principal of the East Denver, Colo., high school and later president of the University of Colorado, died September 11th at St. Joseph's Hospital, Denver. Dr. Baker was a contemporary of Dr. William T. Harris, James B. Angell, and Charles De Garmo. He was born at Harmony, Maine, October 13, 1848.

NEWS OF SCHOOL OFFICIALS

—Paul M. Pope, vice-president of the board of education at Oklahoma City, Okla., has resigned because of removal from the city.

—Mrs. W. A. Parsons is the first woman to be elected a member of the school board at Humboldt, Tenn.

—Benjamin H. Cook, defaulting superintendent of Christian County, Ky., whose present whereabouts are unknown, has been named as

defendant in a suit filed in the Circuit Court by the county board for \$23,558.

Cook who was superintendent and treasurer of the county board from August, 1920, to February, 1925, was charged with 27 different acts of misappropriation and unlawful use of the funds of the Christian County board of education. Cook disappeared in February last and has not been located since that time.

—Mrs. R. A. Stewart has been elected secretary of the school board at Washington, Pa. Mrs. Stewart succeeds John McNulty, who resigned because of the pressure of other business.

—Claude J. Jackson has retired from the board of education at South Bend, Ind., after serving in this capacity for six years. Mr. S. B. Pettengill has been appointed to succeed Mr. Jackson. The officers of the board for the ensuing year are: President, R. B. Dugdale, M. D.; Secretary, S. B. Pettengill; Treasurer, William Clem.

—J. P. Coates is the new secretary of the South Carolina State Teachers' Association. He succeeds C. M. Wilson who resigned to become supervisor of trade and industry in the state vocational department.

—Roy B. Adams, M. D., has been appointed physician of the Lincoln, Neb., schools.

—Dr. R. F. Trainer and Dr. E. T. Williams have been appointed medical inspectors of the schools of Williamsport, Pa.

—R. M. Arnold and W. T. Laney have been elected members of the Columbus, Ga., school board for terms of five years each.

—C. Lewis Turner is the new member of the board of education at Rome, Ga.

—Samuel Ach, who has served as president of the Cincinnati, O., board of education, has declined to accept another term.

—Orrin C. Wood, who has been a member of Brookline, Mass., school committee for the past five years, was chosen as its chairman to succeed Walter Humphreys, resigned.

—Dr. W. E. Russell, dean of Columbia university, in an address delivered at Iowa City, Iowa, recommended the establishment of a state board of education.

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1872 — PIONEER MANUFACTURERS OF PLUMBING FIXTURES FOR SCHOOLS — 1925**SCHOOL FAILURES TRACED TO PUPILS**

—Lack of study, absence and change of school, are the outstanding reasons why pupils fail in high school, according to a study made in the Bay Ridge High School, New York City, the results of which have been made public in a recent bulletin of High Points.

In making the study, the points of view of the subject teacher, the student and the grade adviser were sought, and there appeared an agreement for the most part, in all three points of view.

Lack of study accounts for the largest proportion of failures, according to the children's own report. The reasons given for this were too many outside interests, unfortunate home conditions and psychological, such as hating to do homework. Absence also accounts for a large proportion of the failure. In this connection, the report stressed the need of special study to find the causes of absence.

The third, and perhaps the most easily remedied reason, in the opinion of the teachers, is change of school or system, resulting in poor adjustment and discontent of pupils. The chief contributing cause in this is the junior high school problem, which is also the subject of criticism by the children.

The great bulk of the failures, in the opinion of the teachers, may be put into three classes: The students who have the ability, but do not work; the students who are fundamentally weak, and who haven't the ability to accomplish what is expected of them, and students who are absent frequently. The conclusion was that if pupils have normal minds, if they bring them to school each day, and if they put them to work, they will not be failures.

ADMINISTRATION NOTES

—A marked improvement in the administration of the Chicago city school system, a reduction of its functioning problems, and the attainment of a higher standard are features of the annual report of Supt. William McAndrew indicating the accomplishments of the last year. The improvements listed are as follows:

General improvement of supervision by principals; minimum of inefficiency in the teaching staff; absence of strife from the educational department; harmony between the teachers and principals and between the principals and superintendent; approval of the policies of the superintendent by the board of education; co-operation between the principals and the district superintendents; decrease in the use of political influence by school board officers in behalf of constituents, and general upward trend, evidenced by comparative examinations.

In a discussion of the outstanding problems of the school system, Supt. McAndrew says of teachers' councils: "The reduction of teaching time for staff meetings, councils, celebrations, or other supplementary affairs is not justified by the present policy of instruction, percentage of pupil failures and standings of pupils in tests given. The commendable purpose of the councils may be better secured by admitting the principals to the meetings, thereby infusing an atmosphere of common participation."

Much space is devoted to denying the prevalent belief that the school personnel is in continual conflict. Again, the board of education is commended for its stand against the practice of school officials in bringing influence and politics to bear in securing favors for sundry individuals. Attempts to use this influence have been reduced from five hundred to only five instances.

Attention is directed to the disappearing evidences of inefficiency in the teaching staff and to the fact that no proof of allegations that the efficiency gradings were made secretly could be found.

—Troubles in the Chicago public school system, almost without exception, are identical with those confronted by St. Louis, Detroit, Cleveland, and other large cities in the middle west. John C. Tobin, president of the St. Louis board of education, in making a tour of several

cities in connection with a study of school problems, voiced this comment recently.

—The special committee of the Kentucky Educational Association has prepared bills for revising the state textbook law, for re-codifying the school laws, and for establishing a bipartisan state board of education. The research committee of the University of Kentucky will continue its study of the textbook laws of other states and submit its findings to the superintendents' conference in November. The proposed bill is intended to eliminate the sweeping changes in textbooks every five years, as provided under the present law.

—An assistant to the superintendent of schools was employed during the past year at New Britain, Conn., leaving the superintendent free to undertake important supervisory duties. The special duties assigned to the assistant are the general supervision of the buildings and grounds, the supervision of repair work, the supervision of weighing, distributing, and consumption of fuel, the care and distribution of supplies, the assignment of substitute teachers, and the direction of tests and measurements of school work in elementary and junior high schools.

—Public schools in the state of Arkansas may be supplied with textbooks on hygiene, physiology and writing by book companies awarded the contracts by the state textbook commission, without interference of court orders, according to a recent decision of the courts.

Efforts to enjoin temporarily the American Book Company and the Webb Publishing Company from distributing or selling books under state contracts were withdrawn.

Demurrers in the suit brought by J. S. Chaney alleged that the contracts awarded by the textbook commission were illegal. It was contended that the contracts were awarded following secret balloting, which was denied by the book companies. The inferiority of books accepted by the textbook commission was also denied by the book companies.

—West Hartford, Conn. By unanimous vote, the school board has passed a resolution providing that children in the first to the sixth grades shall be excused one period a week for religious instruction.

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—The state of Idaho has passed a law making it unlawful for any person to drive a motor vehicle past a truck, bus or other vehicle used by a school district for the transportation of children to and from school, when children are getting on or off the truck or vehicle.

Each truck must be properly labeled by the district under whose authority it is used.

Each truck must be brought to a full stop before crossing any railroad track.

The law is a safety measure for the protection of school children and there is a fine of not more than \$300 or imprisonment for not more than six months for violations.

—Oklahoma City, Okla. The school board is seeking a suitable location for a room for crippled children.

—With the opening of a new school year, a change in the cafeteria system has been effected in the North high school at Columbus, O. The pupils are divided into four groups, each group reporting at the specified time for lunch. Under the new plan, all the groups reach the steam tables with a brief wait and each has thirty minutes for lunch. The groups also change places in the schedule every two or three weeks so that the waits of the groups are evenly balanced. The change was made necessary because of the congestion and the long waits necessary before lunch could be secured.

—An extension of the system of school cafeterias has been made at Flint, Mich., with the opening of the junior high schools. The school board now operates four large lunchrooms, one in the senior high school, and one each in the junior high schools. All are operated on a cost basis and provision is made for those who carry their lunch, as well as for children who buy their entire lunch at schools.

—Chicago, Ill. The special committee of the board has approved the appointment of a special supervisor to promote and oversee community center activities in school buildings during the winter months. Under the rules, school buildings may be opened to the public for plays, programs and other community activities, not to exceed two nights each week during the period from October to April, 1926.

—Supt. William McAndrew of Chicago has offered a suggestion to the board in the matter of names for school buildings. A rule of the

board prevents the use of the names of persons now living. A European custom provides for the naming of buildings according to abstract qualities, such as Liberty, Justice, and also important dates, such as Fourth of July. The superintendent's office invites suggestions along this line.

—Cincinnati, O. Plans have been completed for the new school for handicapped children, to be erected at a cost of \$350,000. The plans call for a two-story building and for several large spaces providing ample playground space in good weather.

—Chicago, Ill. The increase in enrollment this year was estimated at approximately 20,000 pupils. In addition, the parochial schools enrolled about 125,000, making the actual total well over 600,000. Although the seating shortage has been reduced from 70,000 to 30,000, the board has been compelled to use 90 grammar schools on the "shift" system, two sets of pupils getting five hours of work a day. Many portable buildings will also have to be used until new buildings are completed.

—St. Louis, Mo. The board of education has continued its policy of discouraging the reading of the Bible in the schools. Supt. John J. Madrox presented a report in which he gave the policy of each city mentioned. In nine cities the Bible is not read because of adverse legal decisions, in three others the reading is permitted but not required, and in five cities of the seventeen mentioned, the reading is required by law.

—At a recent pre-opening conference, held at the office of Supt. F. J. Vogltance of Colfax County, Nebraska, it was recommended that pupils be promoted by subjects rather than by grades, and that pupils be graduated from the eighth grade when they have passed the state examination in all subjects covered by the law, regardless of age, past record, race, color or religion. Under the plan, the pupil is able to take his own time and is not required to repeat work he has completed and in which he has earned good grades. It eliminates the lock-step method of promotion and accommodates individual differences.

—The importance of reducing fire hazards in the New York City schools was the subject of a general circular recently issued by Supt. Wm. J. O'Shea, and distributed among the principals

and district superintendents. Supt. O'Shea emphasized the importance of frequent fire drills and a thorough understanding of the fire alarm system, and pointed to the great responsibility resting upon principals, to whom are entrusted the lives of thousands of children.

After calling attention to the regulations regarding fire drills, Supt. O'Shea quoted the following paragraphs from these instructions:

"At least twice a month principals shall exercise the pupils and teachers in rapid dismissal, so that in case of emergency, safe egress from the building may be effected with the greatest possible dispatch.

"On the first day of the term and on the first session of a reorganized school, the principal should ascertain that teachers, janitor and assistants are capable of giving a satisfactory account of the duties required of them. Actual tests of their duties in a fire drill should be made within a reasonable time thereafter.

"As the importance of a thorough understanding of the fire signals cannot be too strongly emphasized, you are requested to make sure that the operation of the fire alarm telegraph system is understood by all teachers, assistants, clerks and custodians in your schools."

—New York, N. Y. The greatest reorganization in the history of the school system was effected this fall with the opening of 38 new school buildings. Each of the two new high schools was filled to capacity, the Monroe and the Madison each receiving 3,388 pupils. The new High School of Commerce was also opened for the first time.

The Borough of Brooklyn experienced the greatest relief from congestion, having 27,047 sittings in fifteen new buildings and additions. The Bronx had ten new buildings, providing 17,175 sittings, giving substantial relief in a congested section. Part time in many districts was entirely wiped out with the opening of new buildings.

—Lyons, Kans. The school board has asked the superintendent to eliminate from the schools, such pupils as appear incapable of profiting from the instruction because of mental or physical defects.

Beginning with the new school year, all pupils two or more years retarded for their grade, were placed in a special ungraded room and

(Concluded on Page 121)

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Los Angeles, Calif.
Cleveland Ave. School,
Niagara Falls, N. Y.
Sherrard School,
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(Concluded From Page 118)

given individual instruction based upon the Dalton or Detroit plan. Pupils with an I. Q. of more than 140, will also be placed in special classes offering individual instruction.

A six-year evening high school course, equivalent to the four years now spent on day sessions, was begun in Philadelphia, in September, for adults past the school age, and for those who wish to engage in specialized subjects in the high schools.

Supt. Wm. J. O'Shea of New York City has written the officials of the transit board and of the subway lines, asking that all measures be taken to protect the teachers and children from blasting and excavating hazards incidental to subway construction in progress in several parts of the city.

Principals must be notified by contractors when any work is contemplated in their neighborhoods, and mutually satisfactory arrangements will be made regarding the exit lines and blasting operations.

An increase in the school day to six hours has been made in a number of cities in Massachusetts in order to give time for the necessary school subjects and for supervised study during school hours.

Miss Lucille Nicol, elected a district superintendent by the New York City board of education in 1923, and subsequently declared ineligible for the position by the state commissioner of education, has been dismissed and re-assigned to duty under her former license as an assistant principal.

The case of Miss Nicol is unique in the history of the New York City schools. After being elected to the position in 1923, the state commissioner found she did not possess the legal qualifications for the position and ordered the board of education to dismiss her. Miss Nicol obtained an injunction restraining the board from removing her, and in the meantime took college work for meeting the eligibility requirements. Later the injunction against the board was vacated, leaving the board no other alternative than to follow the instructions of the commissioner of education.

Manitou, Colo. Supt. J. P. Treat has announced a program emphasizing supervised study during the present school year. In a special circular issued to teachers, he defines

supervised study, offers a brief technique of study, and points out the seven advantages of a study program. It is suggested that teachers study carefully different types of recitations as outlined last year and that they choose those which can be used most effectively, not failing to introduce variety.

An appropriation of \$40,000 for the care and education of crippled children of the state of New York was made at a recent session of the legislature.

Boys outnumber the girls in the Malin, Ore., public schools, and the last graduating class was composed entirely of boys. Every boy in the school but one has taken the agricultural course.

Dubuque, Ia. The enrollment in the senior high school shows a gain over last year. Last year the enrollment was 526 students, while this year the enrollment reached a total of 550 students.

The division of research of the Cleveland, O., public schools has been reorganized for the ensuing year. Mr. W. L. Connor, who continues as chief of the division, is assisted by May Rogers Lane, in charge of vocational and occupational information; by Robert Kutak, who will be secretary of the social science committee; by Roy LaDu, who will assist in research problems, and by Miss Frances Keller, who will be research assistant. Mr. L. C. Bain has been transferred to the bureau of child accounting and statistics. He will have charge of the child accounting work which he formerly conducted in the research division.

Principals and teachers in New York City have taken steps to carry out a policy of the board of superintendents with reference to the classification of pupils according to their ability. Under the plan, all children are to be segregated into classes for the bright, the normal and the slow.

At Bethel, Connecticut, the school board, after consulting the several religious denominations, decided to excuse the pupils upon request of the parents, for one hour each week in order to receive religious instruction. Cards were sent out to 190 families inviting their wishes in the matter. Less than one-third responded and the school board abandoned the plan.

According to figures compiled by the American Bankers' Association, schools having savings systems have increased from 6,868 to 9,080 during the year closing June 30, 1924. Pupils participating increased from 1,907,851 to 2,236,326 in the same period, and collections increased from \$10,631,838 to \$14,991,525.

New York, N. Y. Although the city's total gain in the elementary school registration has been less than one and one-half per cent within a year, Queens Borough reported a gain of more than eleven per cent, increasing its register by 10,412 students to a total of 103,856. All other boroughs showed substantial increases except Manhattan, which has suffered a loss of seven and one-half per cent, or 17,955 students. The register in the elementary schools was 270,348 a year ago. Today it is 252,393.

An average of one pupil out of eleven failed of promotion in the Chicago schools. Supt. William McAndrew holds, however, that a notable improvement has been effected in the schools during the past year. The Chicago Daily News says:

There has been so much melodramatic talk of strife and discontent within the school system that the several improvements recorded by Mr. McAndrew might appear almost incredible to some. The fact, however, is that meddlers have exaggerated every untoward occurrence and thus for their own purposes have sought to arouse dissatisfaction.

Of New York City's one million pupils, 56,789 will be on part time owing to a shortage of classroom space. This is a decrease of 23,987 over September, 1924. The total number enrolled for 1925 is 1,003,429 pupils.

Fort E. Land, the new state superintendent of Georgia, comes into office well equipped. He began his career as a teacher, became city superintendent and later state supervisor. His activities have brought him into touch with every phase of common school work and administrative service in the state.

Superintendent R. W. Kraushaar of Mobridge, S. Dak., in his annual report to the board of education, includes a study on the cost of living in twenty Dakota cities comparing in size to Mobridge. He demonstrates that room rents and board being higher, the average living costs are \$6 a month higher in Mobridge than elsewhere.

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Attractive vitreous china one piece fountain. Combines all the conveniences of the vertical stream fountain with the special slanting stream feature. Glass or cup may easily be filled from it.

C-147

A pedestal fixture of galvanized pipe with extra heavy vitreous china bowl and vertico-slant stream. An extra strong fountain for the playground.



TEACHERS' SALARIES

NASHVILLE SALARY SCHEDULE

—Nashville, Tenn. The school board has adopted an amended salary schedule prepared by Supt. H. C. Weber. The amended schedule embodies the increase granted last April, as well as the changes made thereto, and subsequent to the last published schedule. It provides for an increase in pay to several employees and to those teaching longer hours than the regular school day, and in addition, makes the maximum salary of colored high school teachers the same as the minimum of white high school teachers. The number of employees affected by the amendments is 243. These, in addition to 204 increased in April but not now affected, make a total of 447 receiving increases since last April out of a total of 528 teachers, medical inspectors, and office employees.

The schedule as adopted by the board follows:

White Schools

White Schools—Grade teachers, academic and domestic science and art, first year, \$90; to sixth year, \$110; grade teachers, carpentry and woodwork, \$100 to \$140; supervisors, primary, vocal music, manual training, writing and drawing, domestic science and art, \$120 to \$170; high school teachers, all departments, \$100 to \$150; high school heads of departments, \$150 to \$170; academic supervisor, grades and junior high, \$160 to \$200; high school principal, \$350 to \$400.

Thirty dollars per month will be allowed to such persons as may be assigned the extra duties of high school registrar, or of high school bandmaster, or of high school book custodian, but all of such extra duties must be performed in addition to regular academic work.

Teachers in the grades teaching one-half hour extra will be paid \$10 per month more than the above scale, and organist will be paid \$5 per month more. Teachers in recitation rooms having their pupils supervised by other teachers will be paid \$5 per month less.

No. of Pupils	Salary Per Month		
	First Year	Second Year	Third Year
Under 300.....	\$130	\$135	\$140
300 to 400.....	140	145	150
400 to 500.....	150	155	160
500 to 600.....	160	165	170
600 to 700.....	170	175	180
700 to 800.....	180	185	190
800 to 900.....	190	195	200
900 to 1,000.....	200	205	210
1,000 to 1,100.....	210	215	220
1,100 and over.....	220	225	230

In fixing salaries, experience in recognized schools other than the Nashville public schools shall be considered equivalent to one-half that in the public grammar schools of the city.

Experience in recognized high schools other than the Nashville high school shall be considered equivalent to one-half that in the high school of the city; and,

Teachers transferred by the board of education from the grammar schools to the high school shall be allowed credit for one-half their experience in teaching after having reached the maximum in the grammar schools.

Substitutes, academic and domestic science grades, \$2 per day.

Substitutes, high school and manual training, \$3 per day.

Medical Inspection

Head inspector, first year, \$125 to fourth year, \$150; assistant inspectors, first year, \$100 to fourth year, \$125; school nurses, first year, \$80 to fourth year, \$100.

Negro Schools

Negro Schools—Grade teachers, academic and domestic science and art, first year, \$61; to sixth year, \$86; grade teachers, carpentry and woodwork, first year, \$75, to sixth year, \$100; supervisor vocal music and writing and drawing, first year, \$90, to sixth year, \$110; academic supervisor, first year, \$110, to sixth year, \$130; high school teacher, all departments, first year, \$75, to sixth year, \$100; high school principal, first year, \$125, to sixth year, \$150.

All supervisors and inspectors in colored schools are assistants to corresponding supervisors in white schools.

Teachers in the grades teaching one-half hour extra will be paid \$8 per month more. Teachers in recitation rooms having their pupils super-

vised by other teachers will be paid \$3 per month less.

Hall teachers will be paid in addition to the above scale \$5 per month for each teacher whose pupils she supervises.

Supervisors of lunchrooms in the respective schools will be paid in addition to the above scale \$10 per month. The general supervisor of all lunchrooms in the several schools will be paid \$20 per month in addition to salary under the above scale.

Salaries of principals of grade buildings to be fixed according to the average number of pupils belonging during the previous scholastic year, in the various schools as follows:

No. of Pupils	Salary Per Month		
	First Year	Second Year	Third Year
Under 400.....	\$ 85	\$100	\$165
400 to 500.....	105	110	115
500 to 600.....	110	115	120
600 to 700.....	115	120	125
700 to 800.....	120	125	130
800 to 900.....	125	130	135
900 and over.....	130	135	140

PROPOSALS FOR NEW YORK SALARIES

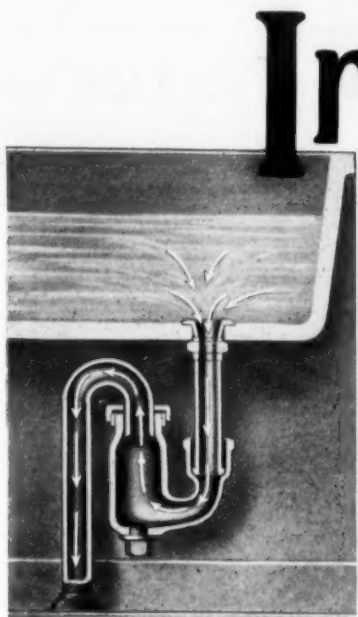
—New York, N. Y. The city board of estimates has been asked to pass the school board budget for 1926 which provides for increases in the salaries of the city teachers. The revised schedules formulated by the board of superintendents and the calculations of cost have been presented to the board for use in determining the salaries to be paid. The teachers have presented a petition insisting that more liberal increases be allowed teachers, and protesting that the schedules allow the supervisory staff salaries out of proportion to those allotted to teachers.

Under the plan recommended by the board of superintendents no additional salary increase, above those in present schedules, would be allowed to teachers of less than three years' experience.

All teachers of more than three years' experience will be granted an additional salary increment in 1926. For teachers in the lower grades this will be \$125 and for teachers in upper grades and in high schools this will be \$150.

Substitute teachers will get a flat increase. The rate for elementary substitutes will be \$7 and for high school substitutes \$8.

(Concluded on Page 125)



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(Concluded From Page 122)

Per diem rates for evening high trade school teachers will be \$7.50 and for principals \$10 and \$13. Recreation center principals are down for \$5.50, teachers-in-charge \$4.50 and teachers \$4. Vacation school principals are listed at \$7, teachers-in-charge at \$6 and teachers at \$5.

The increase for the higher positions are as originally proposed. District superintendents will be paid a minimum of \$7,500 and a maximum of \$8,250 in four years; high school principals, from \$6,500 to \$8,000 in four years; examiners, \$8,000 flat, while directors are grouped in two general divisions—administrative and supervisory, the former being paid at a slightly higher rate, \$7,500 to \$6,000 or \$5,500.

TEACHERS' SALARIES

—The teachers' association of Brooklyn, N. Y., in a recent report, has urged salary increases that will allow the pay of the teacher "to bear a better relation to the cost of living, the social demand of the teacher's position, and the lowered purchasing power of the dollar." The committee which is headed by George M. Davison, stressed the necessity for raising the present standard of professional preparation for teachers, gaining the best men and women available, and keeping these men and women long enough for the "value of their experience to be felt in the schools."

—Taunton, Mass. The maximum salary of elementary teachers has been fixed at \$1,500 per annum, by a vote of the board of education. The new schedule increases the maximum pay by \$100, and becomes effective on January first.

—New Haven, Conn. Increases of \$100 for all teachers who have not reached the maximum pay, have been included in the city estimates for the next year.

—Grand Rapids, Mich. The school board has adopted a new rule governing salaries of substitute teachers. The rule provides that a substitute teacher shall be paid a salary based on the following schedule:

Teachers with an experience of four years or less, with life certificate or less, will be paid \$5 a day, and with a degree \$6; with experience of five to nine years, \$6, and with degree, \$7; with ten to fourteen years' experience, \$7, and with degree \$8; with fifteen years' experience, \$8, and with degree \$9.

—Robeson, Pa. A ten-year salary schedule has been adopted for the grades, with a minimum of \$1,000 a year and a maximum of \$1,500. For the high school a minimum of \$1,300 and a maximum of \$1,800 have been adopted.

—Chicago, Ill. Reaffirming his recent statement that funds for increased salary schedules are available, Supt. William McAndrew has recently declared that obsolete bookkeeping methods employed by auditors of the board showed a large deficit when in reality there was a surplus on hand.

The statement came after a delegation of teachers, headed by Miss Margaret Haley, had called upon the Mayor and protested against the salary increases at this time. The teachers oppose the plan of the superintendent on the grounds that the funds are not available, that the teachers in the lower ranks are given minute increases, while principals and assistant superintendents are given large ones.

The recent audit of the books showed a surplus of \$17,000,000, while the board's own bookkeepers figured a deficit of \$13,799,000 for 1923, and \$15,000,000 for 1924. The difference arises from the fact that the auditing firm figured the taxes levied for the year as accounts receivable, while the board's system of bookkeeping is based upon money actually received. In the opinion of Supt. McAndrew, the law should be interpreted to mean that taxes levied in any year constitute a portion of the assets of that year.



—The Division of College and University Personnel of the American Council on Education, has issued a brief descriptive circular of its organization and work as a central, non-commercial bureau of registration and transfer for college teachers.

During the last academic year, the Personnel

Division received 440 calls for teachers, an increase of 300 per cent over the previous year. Vacancies referred to the Council for filling range in importance from part time instructorships with opportunities for graduate work, to college presidencies. Forty positions paying better than \$5,000 were included in the year's work.

The Personnel Division is conducted on a high professional plane and charges no fees or commissions to registrants. It operates on a national scale, within a limited budget, and is impartially beneficial to teachers and executives alike.

—In New York City, five teachers who had served fifty years or longer in the public schools of the city, were retired on pension.

—Milwaukee, Wis. The school board has been asked to approve an amendment of the rules pertaining to probationary and permanent appointment of teachers. Under the rule, all elections or appointments of teachers or principals will be on probation, and after successful probation of three years, the election or appointment will be permanent during efficiency and good behavior, provided that teachers or principals having taught three years or more are deemed to have served their term of probation. Such persons, upon the recommendation of the superintendent and proper health certification will be placed upon the list of permanently employed by the committee on appointment, subject to the approval of the school board.

—The state department of public instruction of North Carolina has compiled a table and data showing the number and per cent of the various classes of certificates held by all teachers, white and colored during the year 1924-1925.

The data shows that in the rural white schools, the largest single class of teachers, 33.97 per cent, were the holders of elementary B. certificates, who have scholastic training equivalent to high school graduation and credit for one six weeks' summer school.

In the city white schools, the largest class of teachers, 23.79, per cent were the holders of high school A certificates. The certificates indicate high school and standard college graduation, and in addition, professional training for eighteen semester hours.

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In the colored schools, both rural and city, the largest single class of teachers were those who have training equivalent to high school graduation, plus six weeks of summer school training. These teachers hold the elementary B certificate.

Of the rural white teachers, 12.96 per cent were non-standard, which means they have had scholastic training less than graduation from a standard high school. In the case of the white teachers but 1.6 per cent were non-standard.

There were 4,072 colored rural teachers and 1,237 colored city teachers employed in 1924-1925. Of the rural colored teachers, 53.61 per cent were non-standard, and 46.39 per cent were standard. In the city schools, 9.22 per cent of the colored teachers were non-standard and 90.78 per cent were standard.

—The school board of Duluth, Minn., has passed a rule providing that married women with other means of support may not be employed as teachers. Those at present on the teaching staff will be retained.

—Women outnumber the men six to one in the New York City school system. According to the figures in the detailed explanation of the school budget for 1926, there are 29,918 administrators, supervisors and teachers employed for the professional staff of the school system. Of this number, 25,738 are women and 4,180 are men.

—Mrs. Edna Quinn of East Boston, Mass., may be asked to reimburse the city in the amount of \$1,460, because she continued in service as a teacher in the Boston schools for a year after her marriage in September, 1924. It is a rule of the board that no married woman may be employed as a regular teacher. Mrs. Quinn resigned at the end of the last school year, and at that time the school board was unaware that she was married.

—Chicago, Ill. Vigorous opposition has been registered by teachers over the new time clock register system. The faculties of three high schools have voiced their disapproval, branding the plan a reflection upon the integrity and honor of the teaching profession. Resolutions of protest have been presented by each of the schools interested.

—An oversupply of teachers at Butte, Mont., resulted in efforts at placing the surplus teach-

ers in positions in other cities and towns of Montana. County superintendents and officials in the office of the state education department were asked to cooperate in placing teachers in suitable positions.

—Chicago, Ill. Beginning with the second semester in February, the training course for teachers in the Chicago Normal College will be increased from two to three years. The rule marks a new departure in the conduct of the school and tends to raise the standard of scholarship for teachers.

Several factors have contributed to the beginning of the new program, among which is the oversupply of teaching material. It is pointed out that many graduates of the February class are as yet unassigned to teaching positions. The normal growth of the training school class is such that there would be 200 or more graduates unable to obtain positions, and the number of those expecting to teach elsewhere is not great enough to take up the slack. Under the new plan there will be a reduction of about one-third in the number of graduates, and a reduction of six hundred in the number of students enrolling. The result of these reductions means a graduating class that will just fill the demand for teachers, and a better trained group of young men and women.

—The Henry C. Frick Educational Commission of Pittsburgh, Pa., recently distributed scholarships to 305 teachers of Pittsburgh. The scholarships covered all expenses at the summer school and cost the commission \$45,950. The teachers who were thus enabled to improve their teaching efficiency were distributed among 47 institutions of learning.

—Lyons, Kans. The school board advanced one-half month's salary to each of the teachers on the teaching staff with the opening of the fall term. The teachers readily appreciated the thoughtfulness of the board in granting a part of the salary early in the school term.

—One hundred seventy-six instructors are included in the first group of New York City teachers to receive sabbatical leaves of absence for years of faithful service in the schools. The leaves began in September.

—New York, N. Y. Funds for the payment of the medical board of the teachers' retirement system have been exhausted. Unless money is made available promptly, teachers applying for emergency retirement will have to guarantee payment of the official doctor's fees to insure the necessary medical examination. It appears the board of retirement had requested an appropriation of \$6,000 for fees for the medical examiners, but only \$2,280 was allowed. The board has decided to make application immediately for additional funds.

"School teaching is the only business or profession in the world in which 90 per cent of its members expect to remain only a few years, the only business in which inexperienced men and women are employed who are bridging over an unsettled period of their lives with an occupation which they never intend to follow," said Supt. R. C. Hall of Little Rock, Ark., in a public address.

"We are teachers, many of us because teaching is the only occupation of dignity and respect open to inexperience and no preparation. It offers ready money to prepare for something else. To some it furnishes the means of having a good time, to buy pretty clothes, the better to 'dollar up,' and to take summer trips. To others it opens the way to help educate brothers, to support widowed mothers, to prepare for the profession of medicine or law, or to spend the time profitably until more maturity leads them to a decision as to life's work."

These are conditions, which in part cannot be changed as long as women (most teachers are women) have the three inalienable rights of life, liberty, and the pursuit of happiness (a husband). (Some one has been unkind enough to say it is mostly pursuit), and salaries remain too small to attract men to the profession. However, no longer can it be said that teaching is open to inexperience and no preparation, and that 90 per cent of them expect to remain teachers only a few years.

—The school authorities of Pasadena, Calif., will offer food at cost in cafeterias to be operated by the Pasadena Cafeteria Association, an organization formed of local educational groups.

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THE PROBLEM OF THE SINGLE SALARY SCHEDULE

(Concluded From Page 48)

in any grade increases in direct ratio with the increase of college credits. In contradiction of this principle is the testimony of one hundred experienced school superintendents as published in *THE AMERICAN SCHOOL BOARD JOURNAL*. A tabulation of their replies to a questionnaire shows that in their opinion the ideal academic training for an elementary school teacher is three years beyond high school, whereas the ideal for a senior high school teacher is approximately five years. In other words, the service of an elementary teacher is not enhanced by the earning of a master's degree, just as the value of the high school teacher's work is not increased by his training for a doctorate. But the single salary schedule places a premium on such academic study and spends the public money for training which brings no compensating benefit to the people. The problem of the elementary teacher is largely a problem of method; the learning and even the habit of mind secured by higher scholarship are not merely useless in her classroom procedure, they may hinder her in her contact with children. The high school teacher has problems of method as difficult as those of the elementary school; in addition he must be a specialist in his subject, mastering a content beyond the reach of his students, in order that he may deal with assurance with the subject-problems of the curriculum.

"Financially the single salary schedule offers these alternatives: The public must pay greatly increased taxes to raise the salaries of elementary teachers to the level of the high school, or the salaries of high school teachers must be reduced. Constitutional restrictions prohibit any very considerable increase in the local salary budget. Even if the teachers should follow Chicago's lead in bringing to light the personal

property in the city which is concealed to evade taxation, it is extremely unlikely that sufficient funds to establish a single salary schedule on the present high school salaries means further elimination of men fit to train and inspire our youth for good citizenship. Already European educators point to the baneful effects of woman-dominated schools in America. Can we afford further to deny to American adolescence the contact with men which can be properly and certainly secured only in the schoolroom?

"Carried to its logical conclusion, the theory of the single salary schedule is a patent absurdity. If educational work is to be measured solely in terms of academic credits, regardless of the requirements of special ability and outside competition, the principal, the college professor, and the city superintendent must stretch their lengths along this same magical measuring stick and let their salaries be governed accordingly.

"This Utopian theory gains instantaneous popularity because of its specious quality; it is dangerous to oppose because it seemingly offers advantages to the majority of interested persons, both teachers and patrons. That the advantages are in most cases apparent rather than real has no influence until the policy is actually in force. For an edifying example of the result of the single salary idea carried out on a much more general scale than any one of America would dare to suggest we may look to the recent tragic fiasco in Soviet Russia.

"From this consideration of affairs, it seems to us that two recommendations are in order:

"(1) That there be no further weakening of the position of men in Kansas City schools.

"(2) That the Board investigate the present financial status of men teachers in Kansas City to ascertain whether salaries of men constitute a living wage on the plane of living demanded of them.

"Further, if the investigation proposed in the second recommendation sustains our contention that schoolmen can not live within their salary incomes, we firmly believe that the Board should take steps to provide salaries for men which will be adequate for those now in the system and which will cease to discourage young men of superior intelligence from adopting education as a career."

STANDARD GEOGRAPHY TESTS

(Concluded From Page 52)

results on ordinary school examinations, chiefly because the questions have been carefully chosen, their difficulty determined, and extensive norms obtained. Some of the scales offer some diagnosis. So, separate tests may cover North America, Africa, Asia, etc., and each test may deal separately with location of countries and cities, natural features, industries, and so on. By study of the scores made on the various tests, or parts of tests, a teacher may discover which points have been left unemphasized and are in need of further discussion. She may thus save herself from teaching things the pupils already know, and have extra time to put upon instruction along such lines as are unfamiliar."

THE SUPERVISION OF HIGH SCHOOL INSTRUCTION

(Continued From Page 54)

has been a failure in the classroom and he recommends dismissal; there is still one thing that he should do, which is also the final test of confidence. If he knows that the teacher is not to be reemployed, he should tell her so, give his reasons for the recommendations, and suggest a possible course for the teacher to follow in securing further employment. He has been watching her work for the past year; he should be in a good position to tell her what line of work she is best fitted to do. Perhaps she should be in the elementary rather than the secondary school. But, at any rate, she should

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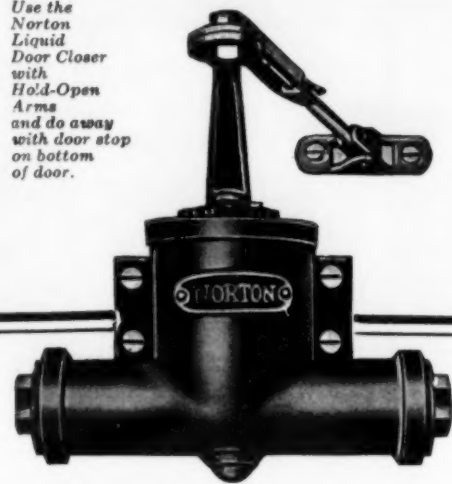
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Omaha, Nebr.

be notified that she cannot depend on her present position for the next school year.

And finally, to quote the principal of a school for boys, let me say that "to me supervision does not mean spasmodic and short visits to first one room and then another; nor does it mean going into the room with the idea of investigating the ventilation, of finding out whether there is paper on the floor, or of seeking for evidence that will convince the teacher of present or past inability to properly discipline the room. I feel that it is more of a professional opportunity than an administrative duty and that the purpose of supervision is to help the teacher to do better teaching."

HYGIENE AND SANITATION

—Anna, Ill. A case of smallpox was reported last February near the boundary lines of the city. It was estimated that approximately 95 per cent of the children in the schools were unvaccinated. Through the cooperation of the city health department and the local board of education, all children were vaccinated and the danger of infection avoided. In most instances, parents paid for the vaccination, but in the case of indigent children, physicians were paid nominal fees from the school fund. As a result of the work, one hundred per cent cooperation was obtained and no pupil was excluded from school.

—The school board of San Antonio, Tex., has adopted a resolution, providing for the strict enforcement of the vaccination law and cooperation with the board of health in all its health work. The board has ordered that rules and regulations be prepared, which will require all principals and teachers to report any violations of health regulations and especially of the vaccination ordinances of the city.

—Chicago, Ill. Improvement of the hearing of a large number of school children who have been deficient in that sense is being made through the efforts of the Chicago League for the Hard of Hearing. Four schools have been selected in which tests will be made during the early part of the present school year.

Whisper tests, originated by Dr. N. H. Pierce of the League's staff of otologists, will be conducted to determine the hearing capacity of every student. When the children in these schools have been examined, those in other schools will be selected. The test is to be given by each teacher in the school to her class, and consists of trying separately each ear of every child at a distance of twenty-five feet by whispers of varying degrees.

It is pointed out that before the introduction of the league's social-service work only 362 of the 493,127 children enrolled in the Chicago school system last year were placed in special classes for the deaf. Following tests in six schools, however, 655 of the 7,588 pupils examined were selected by their teachers for treatment and of that number, twenty were suggested for lip-reading classes.

The disabilities ranged from slight difficulties in hearing to almost total deafness, so that each case was handled individually. Reports on each case are made to parents and in some cases, treatment is given by the family physician.

—Wausau, Wis. The school board has assumed the control of the dental clinic established in the Central school last year by members of the Marathon County Dental Association. A full-time dental hygienist has been employed to examine the teeth of children and to assist at the clinic in the afternoons.

—New Britain, Conn. The school board has issued instructions to govern teachers in making daily inspections of school children for evidences of illness. Children who have been excluded, or are at home because of contagious diseases, may not be readmitted without a card signed by the health officer.

—Tulsa, Okla. A school clinic has been opened on the third floor of the board of education building. One nurse has been assigned to the high school and four to the grade schools. One physician has been assigned to the inspection of sanitary conditions at the various school buildings.

—Dallas, Tex. Five white nurses and one colored nurse have been employed to assist in the new physical examination work of the schools. Each of the nurses will work in ten schools, under the general direction of Dr. Elliott

Mendenhall, chief medical inspector.

—The income from a \$500,000 bequest to the North Carolina Orthopedic Hospital is being used for the treatment of "poor and indigent" crippled children.

—Accident insurance for public school children will be provided by the government of Zurich, Switzerland, as has already been done in Bern and Baselland. At present 150 communities in Zurich provide this insurance, paying an average of 1,000 francs in case of accidental death, 5,000 in case of disability, and three francs a day for medical treatment.

—Paterson, N. J. The school board has revoked the thirty-five-year age limit for school nurses. The removal of the age limit will restore harmony after a long controversy.

—Idaho Falls, Ida. A school nurse has been employed for the next year.

—Dr. Allen Craig, a member of the Gorgas Memorial Institute, recently published a brief article on Health Tests for Children, pointing out that periodic examinations are necessary to find ailments. He shows that only periodic health examinations will disclose what is wrong with the body machine, and these health audits are a profitable investment for any home. Disease may be forestalled and the child will make greater progress because there is nothing wrong with his body to hold him back. Correction of physical defects should be made when correction is easiest.

Dr. Craig makes a number of good suggestions as follows:

"Every home should have a set of weighing scales. Stationary weight in a child is equal to a steady loss in an adult.

"Good, nourishing food at regular hours, slowly eaten and not grabbed will help toward steady growth and development. Eat more bread and butter and drink more milk. A word should be added as to the desirability of more fresh vegetables and fruit.

"Periodic visits to the dentist are a necessity. Small cavities develop rapidly in children's teeth, particularly if they are somewhat careless in the use of the toothbrush. A little care of the children's teeth at the right time may prevent the second teeth from coming in out of place or in an unsightly manner."



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School.....

City.....State.....

11-25

SWEDEN: ITS EDUCATION AND SCHOOLHOUSES

(Concluded from Page 51)

been solved by hinging one sash on the other and locking the two together to be operated as a unit. These double sash are now universal, as they make for easy cleaning and do away with the storm sash nuisance. Our type of double hung sash are unknown, or nearly so, in Europe, where all windows swing either in or out.

The popular floor material is linoleum in the classrooms, wood in the gymnasium, and terrazzo in the halls and stairs.

Ventilation in public or private buildings, as we understand it, is not appreciated in Sweden, or elsewhere in Europe. Everyone on trains, in homes, churches, halls, is afraid of drafts. Only in one school did I see a fan system. In most schools, ventilation is of the gravity type, consisting of two large radiators, one above the other, in a corner closet about eight feet high. This closet is open at the top and has openings at the floor and to the outdoors, with control dampers. Exhaust ducts in the wall near by have openings at the floor and ceiling, though why at ceiling I know not, as the fresh air and heat will short-circuit over the heads of the children.

It is true that the high temperature which our teachers demand is almost unknown and the cool air compensates somewhat for the poor ventilation. As near as I can make out, Swedish schools are never heated over 64° or 65° (why do we stick to the idiotic Fahrenheit system which starts zero at nowhere in particular and has 100° at an equally vague place?) and that would seem like arctic weather to us.

In several schools I saw splendid assembly halls, used both by school and public, and in one new building a motion picture machine such as a "movie" might envy.

In the same building the janitor pointed with pride to a big supply of skis for the popular winter sport. This school provides skis to the pupils and skates, too. This is well, for no sport can provide more fresh air.

Numerous, splendid, and well equipped as are the schools of this far North country, they do not offer much that is new to us or that we would benefit by copying in the way of planning or furnishing. Their best buildings, outside the debatable matter of design and looks (which the sensible Old Romans relegated long ago to the sphere of a *non disputandum*), lack many things which we consider essential in our best schoolhouses — positive ventilation, program clock systems, toilets on every floor, wardrobes, copious light. It is, however, refreshing to see what others have done and not least in one of the oldest of the countries which enjoy our Teutonic civilization, a country whose architects rank today among the foremost of Europe according to the opinion of many.

The city hall of Stockholm which has been ten years in building is certainly one of the most beautiful if not the most beautiful building of this last generation.

THE WORK OF THE SCHOOL JANITOR

(Continued From Page 56)

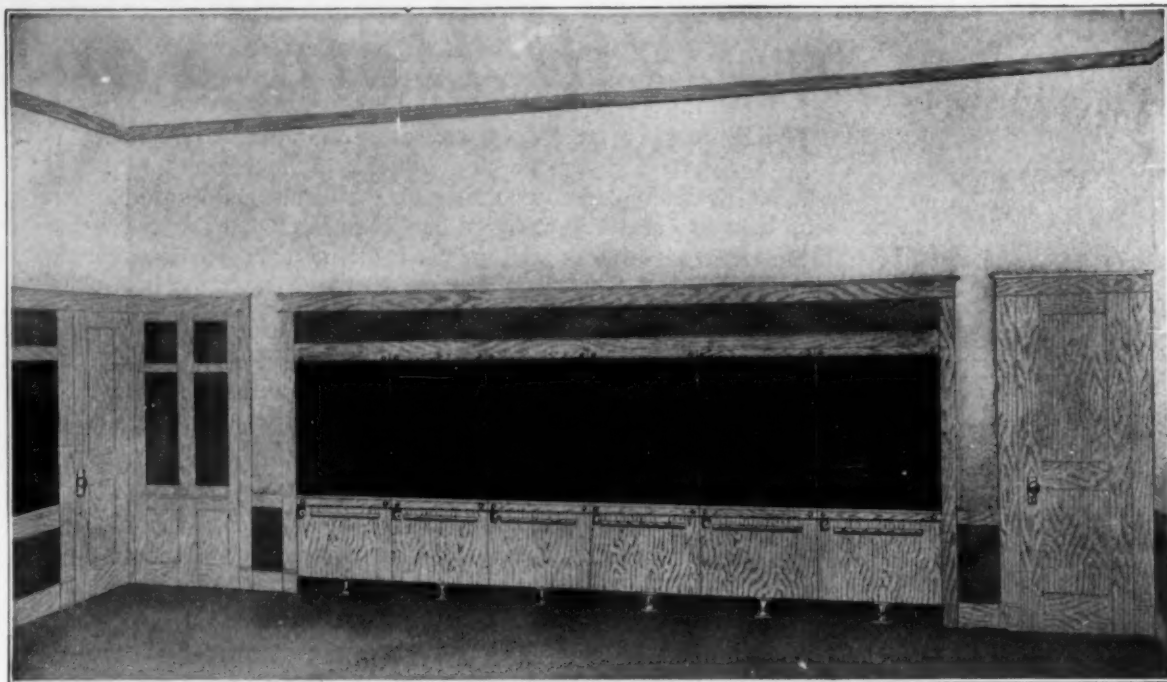
toilet rooms shall be scrubbed, mopped or flushed with hose daily, which is the median requirement. In eleven of the remaining rules and regulations, it is required that this work be performed weekly. In practice, janitors in seven of the eighteen schools observed, scrubbed, mopped, or flushed toilet floors daily, in three schools from two to four times per day and in six schools weekly. Median requirements and median practice agree in scrubbing, mopping or flushing toilet room floors daily.

When one considers the importance of toilet cleaning in schools daily cleaning is none too frequent. Children rush to the toilets after



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each recess period and leave much dirt on the floors and much odor to arise from urinals and toilet bowls. On ground and basement floors, toilet rooms may often be flushed with a hose but where there is no drain in the floor they must be mopped. Where toilets were best cared for, janitors mopped or flushed all toilet floors where they are most used, immediately after the entrance of pupils at the beginning of sessions and cleaned upper toilet floors twice per day.

Of course the required frequency will depend somewhat upon the size of toilets, the age and number of children using them, the amount of ventilation secured either by special ventilators or windows, and the amount of sunlight entering the toilet rooms. Under the best conditions, the median practice of mopping them daily should be sufficient. Where conditions are not ideal in every respect, mopping should be done more frequently, even as often as four times per day.

In the cleaning of urinals, toilet bowls and seats, there was variation from two times per day to weekly in the requirements of 33 rules and regulations specifying frequency requirements for this work, and from four times per day to weekly in the practices of janitors in the schools observed. However, in eighteen of the 33 rules and regulations the provision for this work was daily, and in nine of the eighteen schools observed this was the practice, while in three others observed, they were cleaned either two or four times per day. "Daily," again, is none too frequent and is probably sufficient only under the most ideal conditions.

All toilet cleaning, whether of floors, urinals, bowls or seats can best be performed during school hours, immediately after the beginning of the various sessions when the toilets are not in use, and when the janitors are, as a rule, not rushed with any other work.

Methods of Cleaning Toilet Room Floors: Methods of cleaning the floors of toilet rooms consist of scrubbing, mopping, flushing with hose, and sweeping. Floors of toilet rooms are usually composed of hard substances, seldom of wood, so that mopping is usually sufficient to clean them. Usually basement and first floor toilets where there is no basement, have a drain to the sewer. In such cases the floors may best be flushed with hot water by means of the hose. Usually the toilets above the basement or ground floor do not have the possibilities for flushing and janitors must resort to mopping. Because of lack of sunlight, proper ventilation, and greater use, basement toilets are often less well kept than those on higher floors. They are, however, just as important as those above ground and there can be no excuse for the prevalence of odors or uncleanness.

The long-handled cord mop is better for cleaning toilet room floors than the hand mop. It would hardly be practicable to use the latter on floors that require attention so frequently. Use of a mop pail with wringer attached will save much time for the janitor. A strong hot solution of such cleansing agent as Gold Dust, Dutch Cleanser, or Babbitt's Cleanser may best be used. Disinfectant, such as carbolic acid or lysol is often added to the water.

In mopping toilet rooms the best procedure is to mop a small space well, and then to dry it thoroughly with the cord mop wrung as dry as possible. This avoids having a wet floor for children to track, should they enter while mopping is in progress.

Many janitors sweep toilet rooms. Sweeping requires an average of nearly three minutes for an ordinary toilet room. The average time for mopping such a room is six minutes, thirty seconds. It, therefore, requires nearly half as much time to sweep a toilet room floor as to mop it. Sweeping cannot be used in lieu of

mopping because it cannot remove any but the rough, loose dirt. Toilets must be kept clean, fresh and odorless. Mopping, flushing and washing are the only means for accomplishing this result. Sweeping is seldom necessary.

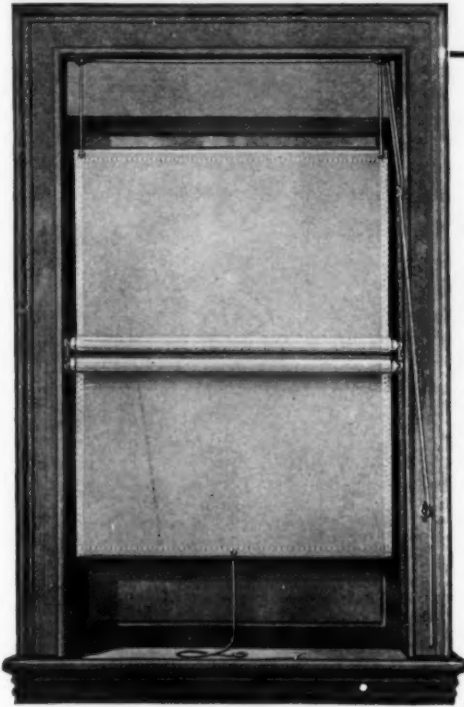
Methods of Cleaning Toilet Bowls, Urinals, Seats, Etc.: In the cleaning of toilet bowls and urinals Gold Dust is the most common agent, although Babbitt's Cleanser and Dutch Cleanser are also used. To a solution of one of these agents, ammonia and some approved disinfectant are often added. In half of the schools observed, a cheese cloth or piece of bath towel was used as an appliance for cleaning, while in the other schools either bristle brushes with handles or swabs with handles were used.

The brush and swab have the advantage of keeping the janitor's hands away from the portions cleaned. On the other hand the results may not be so good as are those accomplished by direct application of the cloth. The grooves around the edges of the toilet bowls, and around urinals accumulate materials that are difficult to remove except by direct means. Such accumulations may be breeding places for dangerous bacteria. They also produce a permanent odor about toilets or even buildings which cannot be removed by ventilation. Such an odor characterizes a building as poorly kept and immediately offsets a great many clean features in the minds of observers.

A good disinfectant should be added to the water used for cleaning bowls, urinals and seats. Deodorants are not necessary. Janitors, in general, in the schools observed, condemned them as contributing in no degree to the cleanliness of the toilets but rather as an indication that the janitor is ashamed of the condition of the toilets of his building and merely tries to cover up the odor.

One of the best procedures observed for clean-

(Continued on Page 137)



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(Continued From Page 134)

ing toilet bowls and seats was as follows: The janitor first flushed each bowl of a room twice by pulling the chain. Then he poured about three quarts of very hot water containing Gold Dust and disinfectant into each bowl. This was cooled somewhat by the cold water in the bowl. He next proceeded to wash off the seat both on the top and underneath by means of a hand mop, and then wiped out the ridge from which the water flows into the bowl and around the sides of the bowl by hand. Then he flushed the bowl and proceeded to the next one. The operation of cleaning six toilet bowls and seats in this manner required six minutes exclusive of time used in preparing the water.

Often toilet bowls, urinals and laboratories become discolored with iron rust that will not wash off with water. A little muriatic acid applied to the discolored porcelain will remove rust stains. The muriatic acid must be applied with a swab. If used frequently it may be diluted. A little kerosene or gasoline will loosen the dirt from porcelain parts accumulated by oily and soapy materials.

Occasional cleaning of tanks above the toilet bowls, the removal of occasional obstructions from bowls, washing of toilet room walls and closet partitions, washing of lavatories and mirrors, are all jobs which must be considered in the cleaning of toilets. Walls and partitions may best be washed with a hand mop or cloth; lavatories are washed best with Gold Dust in hot water, or by sprinkling Gold Dust over the porcelain and rubbing it with a wet cloth. Marks on the walls should be removed immediately upon discovery.

Need for a Woman Assistant: One of the chief difficulties in cleaning toilets arises from the fact that most elementary schools do not have a woman on the janitorial force. In such

cases janitors were compelled either to clean girls' toilets during the day or to leave them until after dismissal. The first plan is objectionable because male janitors should not be permitted in girls' toilets when they are likely to be in use even though the closets may be enclosed and have locks. If they are left until after dismissal, toilets are not cleaned as often as desirable. The only time when they can be cleaned is during the rush hours for sweeping, which is likely to lead to superficial work in toilet cleaning and shorten the time allowed for sweeping.

In order to find what principals think about the need for a woman assistant, the following question was asked them without any discussion or explanation: "Do you think that a janitress to work in cooperation with your janitor is needed?" Ten of the eighteen principals who were asked this question stated that a woman assistant to the janitor was needed. Some of the others might have agreed if the matter of toilet cleaning had been mentioned. The reasons given by these principals were the following:

1. To clean girls' toilets during school hours (8).
2. For certain cleaning jobs (2).
3. To care for teachers' rest room (3).
4. To attend to washing girls (1).
5. They see dirt and things to be done that men cannot see (3).
6. For some dusting and sweeping (1).
7. To serve milk (1).
8. A higher grade of woman can be secured for the same money (1).
9. The woman here does better work and as much as the man (1).

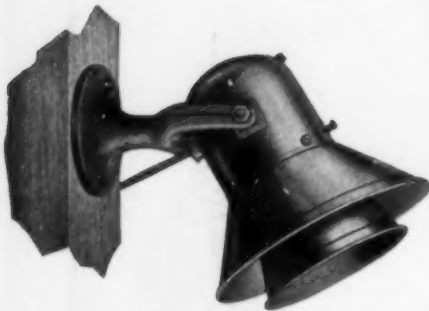
Observation confirms these opinions of the need for a woman assistant. The need for such an assistant to care for girls' toilets during the

day so that they may have proper care and so their cleaning will not be forced to shorten the time allotment for sweeping, is very great. Women assistants may be given some of the lighter jobs of cleaning such as caring for teachers' rest rooms, dusting, care of offices, blackboard cleaning, etc., though in the schools observed women helped with sweeping, window washing, eraser cleaning, and sometimes even scrubbing. But even without heavy work there is sufficient light work about the ordinary elementary school to keep one woman busy.

Summary

1. The greatest need in window cleaning is for more frequent cleaning.
2. Windows should be cleaned at least three times per year at vacation periods on the outside, and monthly on the inside. Many windows may be cleaned on the inside during school hours. Inside classroom windows may have to be cleaned on Saturdays unless other time can be arranged.
3. The size of window pane is an important consideration in the time required to clean windows. The larger the pane the less time will be required per square foot of glass area.
4. A cheese cloth, followed by a chamois, is the best and most rapid means to use for cleaning windows.
5. Water with a little kerosene is superior to a powder as a cleansing agent.
6. The "up and down" and the "back and forth" methods of procedure are both superior from the standpoint of time required to the "circular" method for cleaning glass.
7. Glass of doors should be washed at least two times per week, glass of cases, cupboards, etc., weekly, and transoms, glass fixtures, etc., three times per year.
8. All toilets should be cleaned daily, while those on lower floors should be cleaned from two

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to four times per day, depending upon the amount of sunlight, ventilation and use by children.

9. Toilet room floors should be mopped or, if there is a drain to the sewer, flushed with hose. Toilet bowls, seats and urinals should be washed thoroughly. Gold Dust or other strong cleansing agent should be used.

10. A woman assistant is needed to care for girls' toilets during the day so they will receive sufficient care and so the work will not encroach upon the time allowed for sweeping of floors.

THE MANITOWOC HIGH SCHOOL

(Concluded from Page 58)

The heating of the academic section is by means of a "split system," warm air being supplied through ducts to each room and direct radiation placed on the outside walls under the windows. The fan system changes the air every ten minutes. The direct radiators take care of the heat losses of the various exposures and maintain the temperature in the building when unoccupied without the use of the fans. The vertical air supply ducts to the individual rooms are placed along the corridor walls and back of the lockers. They are supplied with fresh air through a tunnel beneath the first floor corridor. Separate ventilation units are provided for both auditorium and gymnasium sections.

The Manitowoc High School is built of red matt-face brick of variegated shades, laid with heavy flush joints in white mortar, with trimmings of light putty-colored terra cotta of a coarse and rugged texture. It is of fireproof construction throughout, except the roof. The tower above the roof is largely a thing of beauty. It was constructed only after careful consideration and upon the demonstration, by actual bids received, that the cost was only \$30,000 in excess of an alternative design which would have reduced the group to a very ordinary level from

an architectural point of view. On account of its prominence and importance to the aspect of the city, flood lights have been installed to illuminate the tower at night.

TWO JUNIOR HIGH SCHOOLS AT APPLETON, WIS.

(Concluded From Page 59)

cubic foot, or \$491 per pupil accommodated. The cost of the heating and ventilation was \$41,500. It was planned and erected under the supervision of Architects Perkins, Fellows & Hamilton, of Chicago, Ill.

The Roosevelt Junior High School is one of two similar buildings built in 1924, each providing facilities for half of the school population of seventh, eighth and ninth grades of the city school system. Each of the two plans embodies the same features and relation of parts, but the exterior expression of each building has a distinct character of its own.

The building is two stories in height and contains an entrance tower as its principal architectural feature. The latter is in English Gothic style, the upper part of the tower serving as a fresh air intake for the ventilating system. In addition to a large number of classrooms, there are an auditorium and a gymnasium. The building contains 902,851 cubic feet of space and has accommodations for 600 pupils.

The building was erected at a cost of \$288,102, or a cubic foot cost of 31.9 cents, and a per pupil cost of \$480. The cost of the heating and ventilation was \$42,610. Messrs. Perkins, Fellows & Hamilton, Chicago, Ill., were the architects.

MEASURING THE ABILITY OF A COMMUNITY TO FINANCE A SCHOOL BUILDING PROGRAM

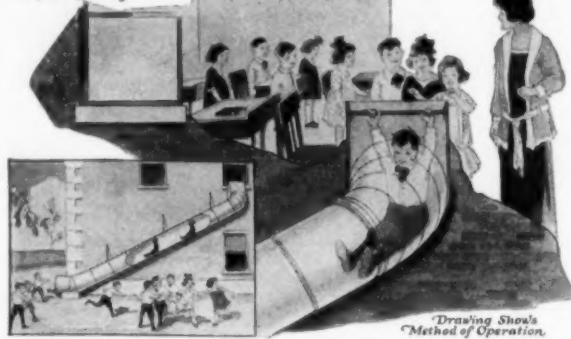
(Continued from Page 65)

Another thing should be considered in interpreting the data of Table III. We refer to the rather out-of-date population data. It is to be

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noted that the population data are for the year 1920, and unquestionably some cities have grown in the last four years much more rapidly than others; a rapid growth seems to have been had particularly by Cleveland Heights. Of course, a comparison of the present per inhabitant wealth, based on 1920 populations, will give the cities that have grown rapidly in the last four years higher rankings than they would have, were the 1924 populations available. It will be more accurate, therefore, to compare the cities as to wealth per pupil; these comparisons on wealth per pupil should be made, moreover, because the number of pupils is the best measure of the educational problem of a community.

TABLE III. WEALTH PER INHABITANT
(1920 Census¹)

City	Wealth per inhabitant	Rank
Cleveland Heights	\$9,154	1
East Youngstown	2,892	2
Massillon	2,754	3
Findlay	2,535	4
Marietta	2,180	5
New Philadelphia	1,656	6
Fremont	1,593	7
Lancaster	1,544	8
Cuyahoga Falls	1,501	9
Ironton	1,499	10
Piqua	1,486	11
Salem	1,456	12
Coshocton	1,448	13
Cambridge	1,424	14
Chillicothe	1,420	15
Barberton	1,390	16
Tiffin	1,296	17
Kenmore	1,262	18
Bellaire	1,182	19
Martins Ferry	1,169	20
Median ²	\$1,492.50	

Chillicothe has \$6,909 of wealth back of each child of school census age; that is, between 5 and 18 years of age. The median city, how-

¹There are possibly some inaccuracies here due to the fact that some cities have grown more rapidly than others. This is particularly true of Cleveland Heights.

²The median city is simply the middle city. In this table, since there is an even number of cities, the median is the average of the tenth and eleventh cities, or \$1,492.50.

(Concluded on Page 141)

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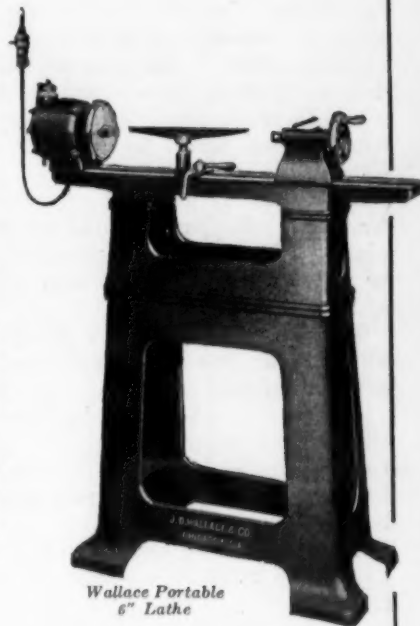
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Wallace Portable 6" Lathe

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(Concluded From Page 138)

ever, has only \$6,222.50 of wealth back of each child of school census age. Chillicothe ranks ninth in the group of twenty Ohio cities with which she is compared. Thus, on basis of wealth per child of school census age, she appears to be a little more able to support schools than do her sister cities. The facts on wealth per child of school census age are brought out in Table IV.

City	Wealth per child	Rank
Cleveland Heights	\$22,846	1
Findlay	11,505	2
Marietta	10,033	3
Massillon	9,860	4
East Youngstown	7,803	5
Fremont	7,077	6
Piqua	7,011	7
Salem	6,957	8
Chillicothe	6,909	9
Ironton	6,310	10
New Philadelphia	6,135	11
Cuyahoga Falls	5,854	12
Lancaster	5,821	13
Barberton	5,458	14
Tiffin	5,353	15
Cambridge	4,826	16
Kenmore	4,078	17
Bellaire	4,182	18
Martins Ferry	3,597	19
Coshocton	1,309	20

Median \$ 6,222.50

Chillicothe has \$6,594 of wealth back of each pupil enrolled in the public schools. The median Ohio city, however, has \$6,776 of wealth back of each pupil enrolled. Chillicothe ranks fourteenth in the group of twenty cities. Thus, on basis of wealth per pupil enrolled in the public schools, she is not quite as able to support schools as is the typical Ohio city.

Unfortunately, the data are not available to show how many of the pupils enrolled in the various cities are tuition pupils. However, according to Superintendent Bowman, there are a large number of these tuition pupils enrolled at Chillicothe. If the percentage of these pupils is larger than is found in the typical

city, of course this fact would bring down the rank of Chillicothe. A large percentage of private and parochial school enrollment would tend, on the contrary, to bring up the rank of a city on wealth per pupil enrolled in public schools. The wealth per pupil enrolled in public schools is shown in Table V.

City	Wealth per pupil	Rank
Cleveland Heights	\$25,014	1
Massillon	12,973	2
Findlay	12,018	3
Marietta	11,081	4
East Youngstown	9,559	5
Fremont	8,881	6
Tiffin	8,708	7
Piqua	8,626	8
Lancaster	7,567	9
Ironton	6,809	10
Cuyahoga Falls	6,744	11
East Philadelphia	6,744	12
Salem	6,640	13
Chillicothe	6,594	14
Barberton	6,569	15
Coshocton	6,544	16
Kenmore	5,148	17
Cambridge	5,130	18
Bellaire	5,100	19
Martins Ferry	4,719	20
Median	\$ 6,776.50	

(To Be Concluded)

HIGH SCHOOL ADMINISTRATION

—The Totem, of South Side high school, Fort Wayne, Ind., has been judged the best secondary school yearbook by the Central Inter-scholastic Press Association as a result of its fifth American yearbook contest. The next best yearbooks are the Roll Call of Culver Military Academy, the R. H. S. of the Rockford, Ill., high school, the Hesperian of the West high school, Minneapolis, and the Quiverian, of the Kansas City, Kans., high school.

—The Cambridge (Mass.) school committee has ordered the segregation of sexes in the Cambridge high and Latin schools. About 1,200 students are affected by the change, which will be put into effect as soon as the school survey now being conducted is completed. Members of the committee believe that because of the large numbers attending the schools they are not under proper supervision.

—The state board of education of Kentucky has fixed a school term of 36 weeks for high schools of the state. Recitation periods will be forty minutes in length.

—Urbana, Ill. Supt. C. W. Cookson has passed an order prohibiting hazing by high school students. The order followed the practice of some extreme pranks by upper classmen in the high school.

TEACHERS' INCREMENTS FEWER AND LARGER

In a comparison of teachers' salaries at Cincinnati, O., with those prevailing in similar cities, Dr. E. S. Evenden presented many facts to the elementary principals' club at a recent meeting of that organization. Dr. Evenden pointed out that among cities of 400,000 or more inhabitants, Cincinnati does not rank high in size of salaries.

Dr. Evenden held that the annual increments of teachers should be fewer and larger, and never automatic; that the maximum for elementary principals and senior high school teachers is at present low and that salaries should be revised and adjusted all along the line.

An increment of \$300 to \$500 will have more attracting power than one of \$100. Cincinnati increases though sufficient in number are too small, in the opinion of Dr. Evenden. The maximum salary for junior high school teachers is high in Cincinnati, but low on the other hand, for elementary principals and senior high school teachers. It was recommended that increases in salary be provided on the basis of additional training, looking toward a higher budget five or ten years hence.

A strong plea was made for a schedule of equal pay for all teachers with equal training and experience. Dr. Evenden also touched upon the question of a differential between the salary of men and women. High grade men cost more, by the law of supply and demand, than the same grade of women and he thought women teachers should be willing to concede a higher salary to men in order that they may associate with men who are their equals in intellect and professional standing. He declared himself in favor of higher salaries and not opposed to tenure of office, pensions and automatic increases.

Washington Correspondence

A. C. Monahan, Formerly U. S. Bureau of Education

Washington High School Fraternities Case

The long-drawn-out fight by the high school fraternities against board of education rules seems about closed. One of the Greek letter fraternities having submitted to all requirements of the board, has just been given the board's stamp of approval. Two additional fraternities have now asked approval on the same conditions. The submission is the result of a series of conferences held by Supt. Ballou with representatives of the fraternities. The conditions on which the one already approved received favorable action by the board, and which others must meet for recognition, are as follows:

The fraternity may still retain its Greek letter name. Members will be allowed to wear pins to school. Some additional insignia may be attached to show the wearer belongs to an approved fraternity.

Meetings will be open to an authorized faculty member, but rituals which are written in code will remain secret.

Names of members will be furnished school officials and the membership will be recruited from juniors and seniors. Membership will be by invitation, but students may apply for membership.

Members will be elected by an open ballot. Candidates must be approved by school principals.

The fraternity may keep its pledge secret if it contains nothing which requires one member to defend another guilty of wrongdoing.

Each faculty adviser will be selected from a list of six faculty members submitted by the fraternity.

WASHINGTON TEACHERS—PROMOTION AND OUTSIDE EMPLOYMENT

A new plan for the promotion of teachers to teaching and administration principalships in the graded schools of Washington, prepared by Supt. Frank W. Ballou, has been approved by the board of education. Hereafter promotions will not be made as the result of written examinations, but will be made according to the general efficiency rating of the teachers.

Evidence of general efficiency submitted by the candidates will be judged as follows: Educational preparation, 150 points; teaching ability, 200 points; administrative ability, 300 points; professional interest and growth, 100 points; personality, 150 points; physical vigor and health, 50 points, and school and civic interest, 50 points.

Employees of the Washington school department are forbidden to engage in any other remunerative work except when approved by the superintendent of schools. The board's rule on this matter reads:

"No employee of the Board of Education shall perform services for pecuniary or other consideration except during vacations, in any business, trade, or occupation, without first having obtained the written consent of the superintendent."

This rule is entirely separate from a Congressional provision relative to Government employees which affects the District teaching staff as they are regarded as Federal employees. This Act of Congress provides in effect that no person may hold two Government positions if the two salaries together equal or exceed \$2,000 per annum. This prevents the employment of many desirable regular teachers in the night schools conducted by the District of Columbia. Also it prevents their employment in part-time special work in the U. S. Bureau of Education, the Federal Board for Vocational Education, the National Academy of Science, the Educational Service of the Army or Navy,

and in many other offices where the work done would be of especial value to them in their regular teaching position.

Safety Locks on School Elevators

That school elevators should be equipped with approved elevator interlocks for the safety of their users, is emphasized by recent action of the National Bureau of Casualty and Surety Underwriters. This organization, one of the largest of its kind in the United States, has just granted a reduction in insurance rates on elevators equipped with interlocks which have passed the tests of the United States Bureau of Standards. The result is a substantial saving in insurance rates. But far more important than this, and, of course, the reason underlying the above action, is the greater assurance of safety in elevators equipped with devices which have successfully passed these tests. The best statistical information available indicates that effective hoistway door elevator interlocks would have prevented three-fourths of the fatal elevator accidents which have occurred in the past years.

This testing was originally undertaken for the City of Baltimore. It was then extended to include tests for the Office of the Supervising Architect and for the District of Columbia. The tests will probably also be utilized in the near future by a number of state safety commissions.

U. S. BUREAU OF STANDARDS

The Bureau of Standards during the year just closed completed 171,196 tests on materials and devices submitted to it by public and private makers and users. A large number of these tests are of interest to school authorities, covering as they do, all types of building materials, and much that is used in the conduct of the school and in teaching, such as analytical weights, clocks, chemical glassware, electrical instruments and lamps, leather, paper, inks, etc.

For tests made for school boards, or other organizations, or for individuals, a relatively small fee is charged. During the past year these fees collected totaled \$544,385, an increase of approximately \$35,000 over the amount from fees for tests the preceding year. All of these receipts are paid by the Bureau into the U. S. Treasury, the expense of the con-

duct of the Bureau being included in the annual budget and appropriation from Congress.

During the month the Bureau has completed several tests of interest in school construction. One has to do with the relative strength of concrete made from fine ground and coarser cements. The test has extended over ten years and shows the fine ground cement gives stronger concrete. Other tests have been carried on at the same time with "blended" cement. This term is used for a mixture of high grade cement and some other local material such as sand, ground together to a definite degree of fineness, or ground for a definite length of time. This process is often done on large construction jobs where transportation costs are high and an apparently local material for the blend is found on or close to the job.

The results of the tests show that wherever it is proposed to use blends that individual tests of the exact blends must be made to determine whether it may be used with safety or not. The Bureau is ready to undertake such tests.

During the month the Bureau has added to its approved "list of specifications" one other of interest to schools: United States Government Master Specifications for Building Hardware. A new circular on paving bricks is probably also of interest.

1926 MEETING OF THE N. E. A. AT PHILADELPHIA

The executive committee of the National Education Association has fixed the place and time for the 1926 annual meeting—Philadelphia, on the week beginning Sunday, June 27th. At the Indianapolis meeting of the association last July, a preferential vote was taken relating to the 1926 meeting place. Philadelphia received the highest vote. The executive committee, which makes the actual selection, following always if possible the results of the preferential vote, has just received the necessary guarantees from responsible organizations in Philadelphia to make the definite decision on that city as the meeting place.

The Academy of Music, if present plans materialize, will be used for the representative assembly meetings. Its seating capacity is approximately 3,000. The foyer of the Academy will be used for general headquarters and registrations. There will be no hotel headquarters. General public meetings and mass meetings will be held in the Franklin Field Stadium at the University of Pennsylvania. "Loud speakers" will be used.

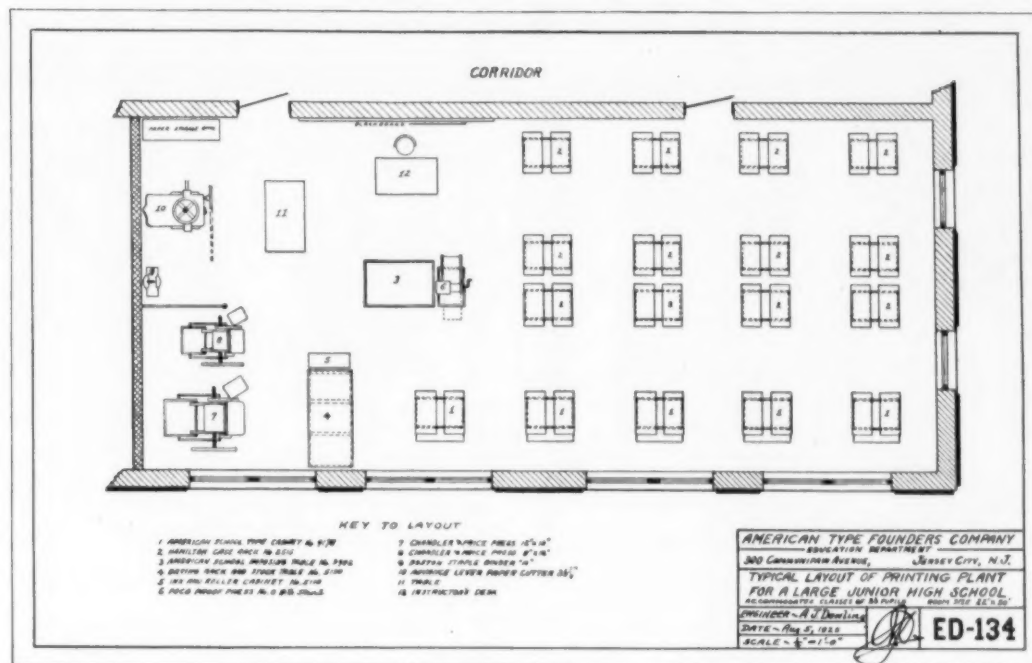
Hotel accommodations will be more limited than desirable, but arrangements have been made with the University of Pennsylvania to use the University dormitories and rooming houses. Other Philadelphia colleges also have offered the use of their rooming facilities. Satisfactory rooms are, therefore, available for all who may attend.

One great advantage of Philadelphia for this 1926 meeting is the fact of the Sesquicentennial Celebration to be held there from April 30th to November 16, 1926, commemorating the signing of the Declaration of Independence. This will be of particular interest to educators, as among the principal exhibits will be those depicting progress in education. The educational exhibit will occupy a large part of the new main building of the Free Library of Philadelphia. It will show general progress in education during the 150 years, in physical plants and equipment, in methods and results, from the kindergarten through the University research departments. In its preparation, co-operating will be state departments, universities, colleges and normal schools, city school systems, and rural school systems from all parts of the United States. Philadelphia, therefore, has unusual attractions in 1926 for the members of the N. E. A.



MISS ALICE SUPPLEE,

Seattle school teacher, who penetrated into the frozen North to nearly 1,000 miles beyond the last white outpost to teach a group of native folk, of the district. As a schoolroom she used a venturesome boat, the "Maid of Orleans," which is frozen fast in the ice.



Layout of a School Printshop to accommodate Thirty-six Pupils

Thirty-six Pupils to one class in PRINTING

THE above sketch shows how thirty-six pupils can be efficiently handled and successfully taught at one time, in the School Printing Department.

Not always is it desired to have such a large number in one class, but the above layout proves that this number can be accommodated without loss of efficiency in teaching—and at a slight extra cost—when for economic reasons it is desired to enlarge the Printing Class.

Printing is the ideal industrial subject for all types of schools, but especially is it ideal for the Junior High School. It combines academic and trade instruction. Spelling, punctuation, paragraphing, margining, literary construction, grammar, even arithmetic, are all used in a practical way in the teaching of Printing.

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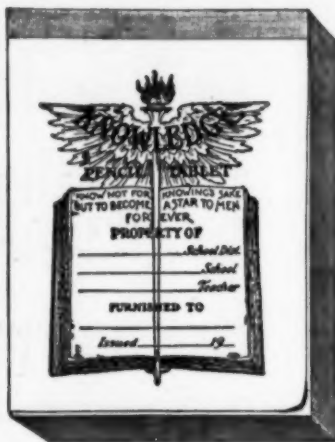
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NEW BOOKS

Oceania

By Jas. F. Chamberlain and A. H. Chamberlain. Cloth, 172 pages. The Macmillan Company, New York.

The rapid strides of the countries comprising Australia and the greater islands of the Oceanic groups provide a history that parallels the development of our own Western States in many respects. It is this progress in population, in industry, in agriculture, in mining, in transportation, which have led to the complete revision of this supplementary reader. In nine years the growth of the countries has made half of the older book obsolete.

The present edition follows the arrangement and plan of the original work. A new chapter contains a series of projects for motivating the study of the test. The illustrations are new and decidedly superior.

Beginners' Geometry

Rolland R. Smith. Cloth; 342 pages. The Macmillan Co., New York City, N. Y.

The subtitle of this book is "Geometry Understood, Not Memorized," and the slogan, so important in any successful study of the subject, has been literally carried out. The author has departed widely from the old formal presentation and has made use of devices, now commonly applied to the teaching of elementary arithmetic. He has made each topic and each principle understood by recalling familiar facts to the student's mind as a preparation for the formal statement and proof. Exercises are used not only to drive home principles, but also to act as easy transitions to new topics. While the book is always mathematically accurate, it becomes more formal as it progresses and as the student grasps mathematical ideas. The order of the work is that recommended by the National Committee on Mathematics. Rather complete suggestions for teachers are included.

Manual for Hand Woodworking

By DeWitt Hunt. Cloth. Price, \$1.25. Harlow Publishing Co., Oklahoma City, Okla.

An introductory text for upper grades.

Singing Games and Drills

By Chester Geppert Marsh. Cloth; 162 pages, illustrated. Price, \$2.20. A. S. Barnes & Co., New York City.

Carefully graded groups of singing games, action story games, running games, maypole dance and drills for grammar grades make up the body of this book. Supplementary chapters present posture tests and details of an exhibition drill.

Automotive Repair for School and Home

A working manual of common jobs. By Homer J. Smith, University of Minnesota, and Roy S. Kern, Vocational High School, Virginia, Minnesota. Octavo 6 x 9, 123 pages. Price, \$1.00. Manual Arts Press, Peoria, Ill.

This book is designed especially to serve as a text for use in vocational schools, not as a reference work. The common repair jobs are clearly and simply outlined with a list of tools and materials needed for each job. A good index adds to the value of the book.

Geography, United States and Canada

By Harlan H. Barrows and Edith Putnam Parker, both of the University of Chicago. Quarto, 7 1/4 x 10; 288 pages. Silver, Burdett and Company, New York, N. Y.

This is the second book of the series. The first, "Journeys in Distant Lands," introduces the child to the general idea of geography which the authors set forth as the effort "to describe and explain the relationships existing between man and his natural environment." The second book dealing with the United States and Canada follows the same general principle. Some of the outstanding features of the book are: (1) The unprecedented attention given to the geography of the larger cities of the country. (2) Its use of "geographic regions" bringing out the relations between dominant human activities and natural environment and separating these regions from each other not by distinct lines, but by "transition zones" as they are separated in reality. (3) Its constant use of concrete illustrations and details in descriptive paragraphs.

The Pathway to Reading

By Bessie Blackstone Coleman, Willis L. Uhl, and James Fleming Hosie. Illustrated by Eunice and John Stephenson. Second Reader, 186 pages, Third Reader, 248 pages. Published by Silver, Burdett & Company, Boston.

The claim made in recent years that the United States excels in the production of textbooks for the common schools is well sustained in these two readers. The authors, by virtue of their identification with juvenile training, have been enabled to produce texts that are bound to enlist the interest of the child mind and excite the imagination to wonderful things.

The subjects, which deal with fable and legend drawn from all known sources, are happily treated. The illustrator brightens every page with colored pictures, and thus fixes unique situations as well as animals and men to the student. The publisher, too, left nothing undone in bringing the printers' art to its best expression. The type is large and readable, and the binding substantial and attractive.

Meats and Meat Products

By William Henry Tomhave. Cloth, 418 pages, illustrated. Published by J. B. Lippincott Co., Philadelphia, Pa.

Vocational education for agriculturists has been remarkable for the absence of vapory theory and for the universal use of simple facts and widely accepted methods and processes. Even in the most advanced college work there is a total absence of roundabout and involved theorizing and a maximum of usable information and direct, clean-cut teaching of useful principles and verified facts. The textbooks for all branches of agricultural study have been marked by this same quality and have been uniformly more satisfactory than those used for teaching the trades, commerce, and even the sciences.

The present book is no exception. It offers a complete, rounded body of information on the killing of animals for food purposes, and on the preparation and food value of meat products. It is directed to teachers and advanced students, and to practical farmers and meat packers. The nature and value of meat is first discussed. Then the selection of animals for slaughtering, diseases, tools, etc., are presented. The main sec-

(Concluded on Page 146)

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(Concluded From Page 144)

tion of the book describes the actual slaughtering and dressing of cattle, hogs, lamb and mutton, veal, and poultry, and the cutting of the various carcasses. Both packing house and home farm methods are described.

The third part of the book takes the yields of carcasses and the grading of meats, by-products, sausage making; curing, canning, and smoking meats; shipping, refrigeration, and inspection, etc.

It would be difficult to say whether the book will appeal most to farmers or to butchers. Ample teaching material, suggestions for exercises, problems for study, etc., are included.

Effective Business English

By Alta Gwinn Saunders. Cloth, 603 pages. The Macmillan Co., New York City.

The author aims to teach not merely the mechanics of letter writing but those broader, deeper, and more important elements—the nature, function, and problems of business letters and how these are to be treated in the course of everyday business life. Part one emphasizes the importance of intelligently solving the problems presented in each type of letter and of approaching each letter as a problem to be intelligently solved. Part two takes up salesmanship and the language qualities of letters. Part three discusses the various types of letters and suggests attitudes and methods for solving the problems each type presents. Part four describes the elements of business reports. After all the success of business correspondence consists in the right approach to the problem in each letter and in the effective presentation of thought to cause favorable reaction on the part of the recipient. The present book is excellent as a college course in correspondence from the point of view.

Crowell's Handbook for Readers and Writers

Edited by Henrietta Gerwig. Cloth, 734 pages, 8 vo. Price, \$3.50 net. Thomas Y. Crowell Co., New York City.

This is a dictionary of "famous characters and plots in legend, fiction, drama, opera, and poetry." It presents important historical and literary dates, the principal works of famous authors, and a wide collection of literary and journalistic terms and familiar allusions. The

field covered is similar to that of Brewer's Handbook.

Europe

By Vinnie V. Clark. Cloth bound, 574 pages. Published by Silver, Burdett & Co., Boston and New York City.

This is a delightful geographical reader which describes the customs, habits, and modes of living of the several countries of Europe. It begins with the Scandinavian countries and Finland, then covers the Baltic republic, Germany, Austria, Switzerland, England, Scotland, Wales, Ireland, etc. The Latin and Slavic countries are also adequately dealt with.

The writer manages to crowd many interesting political, historic, and economic facts into her descriptions. The work is written in popular language and covers a variety of activities and interests. The book is well illustrated.

Suppose We Play

By Imogen Clark. Cloth bound, 250 pages. Price \$2, net. Published by Thomas Y. Crowell & Co., New York City.

Here is presented a collection of indoor and outdoor games for young and old. The author has not only assembled all the popular children's plays and singing games common to our land, but has also brought into service a number of games from other lands.

Then follow a long series of outdoor and indoor games, described in manner so as to be easily followed. An even longer list of "games for parties" is provided. The closing chapter is devoted to riddles, puzzles, and charades.

Automotive Repair for School and Home

By Homer J. Smith and Roy S. Kern. Cloth, 123 pages. Price, \$1. The Manual Arts Press, Peoria, Ill.

This is a compact working manual for students, automobile owners and repair men. It describes the essential features of the automobile mechanism and provides directions for adjustments and repair. With the general popularity of the motor vehicle the book constitutes a timely contribution to the literature on care and repair of the same.

PUBLICATIONS RECEIVED

Seattle Juvenile Court Report for 1924, Seattle, Wash. The 1924 report on juvenile delinquency shows a decrease of nearly ten per

cent in the number of children brought before the court for deviations from good conduct. A total of 1,189 conduct cases were handled in 1923, as compared to 1,084 in 1924. The entire decrease was in the boys' group, the girls showing a slightly greater number. The excellent work done by the attendance department of the Seattle public schools, and by other agencies of the city, have contributed largely to the lessened number of children brought to court. In diagnosis and treatment of children, invaluable aid was given by the Child Study Laboratory of the Seattle schools, by the city clinic and hospital, by the Junior Red Cross, and other agencies.

A Study of Supervised Study. By W. A. Brownell. Bulletin No. 26, 1925, of the Bureau of Educational Research. Price, 50 cents. Issued by the University of Illinois, Urbana. Many of the investigations of supervised study appear to represent much wasted effort since it is unnecessary to prove the obvious. Mr. Brownell renders a distinct service in offering a critical summary of over 450 pages of material relating to supervised study. He discusses variations in meaning of supervised study, variable factors between schools, variations in types of technique, and merit of supervised study.

Physical Examination of Fargo School Children

Of the 2887 children (average belonging for school year) in the Fargo elementary schools last year, 2222 were examined by the school physician (fourth and sixth grade being omitted except when examination was specially requested by the parent).

Of these 1569 (71 per cent) were accompanied by the mother who observed the examination and received instruction by the physician.

The board of education has just ruled that all pupils taking part in any form of competitive athletics be given an initial physical examination and have continuous supervision of the school physician, being seen by him every two weeks during the season.

—Cadott, Wis. The school board has passed a rule barring the employment of married women teachers. The rule takes effect in September, 1926.



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ADMINISTRATIVE METHODS IN ST. LOUIS

Through a division of research, known as the Division of Tests and Measurements, Supt. John J. Maddox of St. Louis, Mo., has attacked the problems of educational administration. The division of research, consisting of a director and six assistants, is regularly engaged in careful study and investigation relative to the major problems demanding administrative attention. These problems group themselves under nine heads as follows:

1. Continual revision of the curriculum.
2. Selection of textbooks and other aids to instruction.
3. Classification of children for instruction.
4. The housing problem.
5. Selection and promotion of teachers.
6. Testing of pupil achievement.
7. Problem of curriculum supervision.
8. Financing of education.
9. Keeping the public informed with regard to school activities.

In the solution of these several problems, progress has been made in the setting up of objective methods, particularly in the scoring and rating of applicants for teaching positions. In the past, applicants for positions were selected on the basis of a written examination. Later the written examination was eliminated and the applicant's college record was largely used as the basis of selection.

Within the past year, a plan of scoring and rating applicants has been worked out by the division of research, making it possible to select from six thousand applicants, one whose composite score on the basis of educational degrees, experience, age, professional training, specialized academic training, testimonials, etc., indicates the greatest possible fitness for the position to be filled. Although the measures of qualifications applied to an applicant may not be perfect, it is believed that the use of an objective method of selection is an important step toward the application of scientific technique to the problem of personnel.

The plan in operation provides that when a vacancy occurs in any school, the applicant who scores highest is invited to come to the superintendent's office for an interview. As a rule, the oral examination affirms the judgment based on the applicant's score. Occasionally, however, the results of the oral examination warrant the

discounting of the objective score, in which case the applicant with the next highest score is invited to appear for an interview.

This type of approach is being tried out in meeting all the problems to be solved. During the short period since the organization of the research division, some especially gratifying results have been obtained from studies carried out by the division. A continuous survey of conditions, through a series of studies pertinent to the problems of administration, and an application of techniques as they have been developed, will stabilize the business of education and will tend to win public confidence and professional respect.

SCHOLARSHIP OF TEACHERS IN NORTH CAROLINA

—The North Carolina Department of Education has compiled statistics showing the per cent of standard teachers in the state, as well as the per cent of teachers having two or more years of college training.

In the state as a whole, 89.8 per cent of the white teachers employed in 1924-1925 had training above high school graduation. In the rural schools, 87 per cent of the employed teachers were rated as standard. In all city schools, 98.4 per cent of the teachers were standard. In city group one, 97.3 per cent of the teachers were standard, while in city group two, 99 per cent, and in city group three, 93.7 per cent of the teachers were standard.

Five counties had one hundred per cent of their rural white teachers rated as standard. More than 90 per cent of the white teachers in 44 of the counties were rated as standard.

In ten counties less than 75 per cent of the rural teachers were standard, which means that over 25 per cent had training that was less than four years of high school.

PROGRAM FOR AMERICAN EDUCATION WEEK

November 16-22, 1925

Constitution Day—Monday
Patriotism Day—Tuesday
Home and School Day—Wednesday
Health Day—Thursday
Know-Your-School Day—Friday
Conservation Day—Saturday
God and Country Day—Sunday

Of ten cities in group two, five had one hundred per cent of their teachers rated as standard. In this group, Kinston, with 96.6 per cent of standard teachers, was lowest in this respect. Of the sixteen cities in group three, fourteen had one hundred per cent of their teachers of standard rating, only two falling below this perfect score.

In the state at large, in 1924-1925, 50.4 per cent of the white teachers held primary, grammar grade, and high school certificates, which indicates that 50.4 per cent had two or more years of collegiate education.

In the rural schools, only 38.1 per cent of the white teachers has as much as two college years. In all the city schools of the state, 87.9 per cent had two or more years of college training.

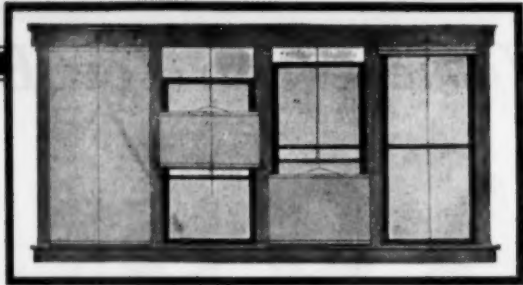
Of the city group one teachers, 92.2 per cent had had two or more years of college training, while in city group two, 90.6 per cent, and in city group three, 85.9 per cent had a minimum of two years of college education.

Durham County, with 83.8 per cent of its rural white teachers having two or more years of college training, ranked highest among the counties. Currituck County ranked second, with 81.8 per cent, and Wilson County was third with 76 per cent. Cherokee County was at the foot of the list, with 7.3 per cent of its white teachers having a minimum of two years in college. In ten counties, less than one-fifth of the white teachers had two years of collegiate training, or the equivalent. In city group one, Winston-Salem ranked highest, with 99.2 per cent of its white teachers holding certificates indicating two years of college training. Asheville ranked lowest among the large city systems in the number of teachers with two or more years of college credits. In city group two, Wilson ranked highest, with one hundred per cent of its teachers having two years in college.

Comment on a School Strike

When the school board of Boonton (near Newark), N. J., failed to reappoint the principal, 300 students went on a strike. The Newark Star-Eagle, commenting on the strike, said:

"Even if it is true that the school board, as many residents of Boonton believe, is acting arbitrarily and in a manner detrimental to the schools, no good excuse can be found for the



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high-handed efforts made to overrule the constituted authorities. The public schools are not communistic enterprises conducted by pupils. Authority and responsibility are necessarily placed in the hands of the board and delegated by the board members to principals and teachers who are subordinates. If the school board abuses its powers and mismanages the Boonton schools, there is a legal method of redress to which the parents of the pupils have recourse. Children of high school age have neither poise nor judgment sufficient to warrant their running the schools, and a strike, of all things in the world, is the most futile means of calming a disturbed situation."

Elective or Appointive Superintendents

At a four county institute held at Galveston, Texas, the question of electing or appointing county and state superintendents came into heated debate. The report of a state educational survey favors the appointive system.

Chairman R. E. Scott, in opposing the same, said: "The appointive system will kill the initiative and interest of the people by removing their responsibility. The state should be proud of the state superintendents it has elected by popular vote."

Asa W. Griggs, superintendent of West Columbia, favored the survey report, declaring against the "peanut politics" that exists where such officers as the superintendents get their office directly from the people and are responsible only to the whole electorate.

"Every city in the country had discarded the practice of electing superintendents. Why should not precisely the same apply to the county and eventually to the state?"

"It is easier to play politics with five men than with the whole county," interrupted Chairman Scott. "You are asking for centralization of the system, and I notice that centralization of the highway systems has made us ride over the most abominable roads we have ever had."

O. A. Fleming of Freeport High School came to the defense of Mr. Scott. "It is true that the people are easily swayed, but we can't take away the interest of the people in the schools by taking away their right to choose directly the school heads."

"There is no such thing in this country as a pure democracy," broke in Mr. Griggs. "Every

day we are delegating more and more of our powers to boards and commissions and are becoming more of a representative democracy."

"An elected board, as recommended by the survey, could secure new blood from other parts of the country," declared A. R. Lester of Beaumont. "We must have experts, no matter where they come from. The people must choose between two or three men—the scope of the board is unlimited. Would we, public school teachers, like to depend on election by the people for our jobs?"

Superintendent E. M. Glasscock of Brazoria County declared himself in favor of retaining the present system, and called on Superintendent O. E. Kennedy of Galveston County, who also spoke a few words in opposition to the measures favored in the survey.

Punctures State Textbook Printing

In Oregon, a man named Stanley Myers, advocates state printing of textbooks. He says: "I firmly believe that suitable texts can be prepared in Oregon by Oregon educators. There is no copyright on the English language, the multiplication tables or the rules of spelling, nor is there any monopoly of brains in the persons hired by the school book trust to write for it."

The Portland Oregonian punctures the scheme in the following language: "It is precisely because there is no monopoly of brains, or of technique, or of experience, or any of the other paraphernalia of schoolbook making, that it would seem unwise to set up a home-authorship standard, or any other gauge than the usefulness of the book for the purpose for which it is designed. Whether the book is supplied to the pupil by the district, or bought by the parents, it ought not to be less than the best obtainable anywhere. It would be fine if texts by Oregon writers met the requirements. Such ought not to be—will not be—excluded. Yet we should not deny the possible advantages of access to the unmonopolized brains of other states."

"Regardless of any policy as to printing and distribution that may be decided on, the content of the book must be judged by the single test of merit, and none other, and without reference to the domicile of its author. That we are not invariably getting the best texts under the present system is beside the question. It is an argument, not for further restricting the field of

Toilet Paper Fixture

That Prevents
Waste
And Protects
Service.

SCHOOLS in many states have standardized on Palmer's Economy Toilet Paper Fixture: likewise the Paper Towel Fixture, which is of the same principle, and affords the same important advantages.

Firstly, roll toilet paper costs less per sheet than package paper, and unlike package paper, purchase is not restricted to one kind or make of paper.



Palmer Economy Toilet Paper Fixture, illustrated above, controls removal of sheets to only one or two sheets per operation. Permits but one revolution of roll and stops. Continued pull causes paper to tear at perforation; and roll snaps back to original position. No waste. No littering of floor, no disorderly streamer from roll. Kept intact always, automatically regulates number of sheets per person. Self locking. Best material and construction. Attractively designed. Nickel plated. Conforms with all plumbing equipment. Takes any standard toilet paper roll.

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Paper Towel Fixtures
Toilet Paper Fixtures

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Economy Toilet Paper
Fixture

Liquid Soap Tank Systems
Floor Dressing
Concrete Hardener
Sanitary Dusts

JANITOR - SANITARY - SCHOOL SUPPLIES

choice, but for changing them for the best as soon as the thing can be done."

JOHN H. PUGH DEAD

John H. Pugh of the Western Teachers' Exchange, Chicago, died on September 15th. Mr. Pugh was at one time the representative of the Werner School Book Company, and after the consolidation of that company with the American Book Company, became a representative of D. C. Heath & Company. He remained in this work for several years, when he went to Montana where he purchased and conducted a large stock ranch.

Later he quit the stock ranch and became identified with the W. H. Wheeler Publishing Company. During recent years he has managed the Western Teachers' Exchange at Chicago. He was a brother of C. H. Pugh, who conducts the Western Teachers' Exchange at Denver, Colorado.

John H. Pugh enjoyed the friendship and good will of the school people with whom he dealt. He was a conscientious worker whose ambition it was to serve his fellowmen.

Issue Word Study Leaflet

—G. & C. Merriam Company, Springfield, Mass., have just announced the publication of its new leaflet, "Word Study," which is to be devoted to the better teaching of English, by furnishing a medium of interchange for ideas of those having mutual interests. The pamphlet will be published periodically and sent without expense to English teachers who are listed on the firm's mailing list. The first issue contains suggestions on classroom devices and typical classroom exercises. There is also a list of the recent publications on the subject of English.

How Do Educators Look?

"Here and there one is well groomed; a few make notable impressions. The great majority flaunt their unconcern for appearances; metaphorically their report or catalog-shoes are unshined, collars are wilted, ties wear at shirts or suits, smiles have disappeared, demeanor and language are no longer winning."

So says Public Service, a New York publication. "How does this happen? It is hard to understand, particularly in the many cases where educators spend a great deal of time and money for the sake of creating an entirely different impression from that conveyed by their reports or catalogs."

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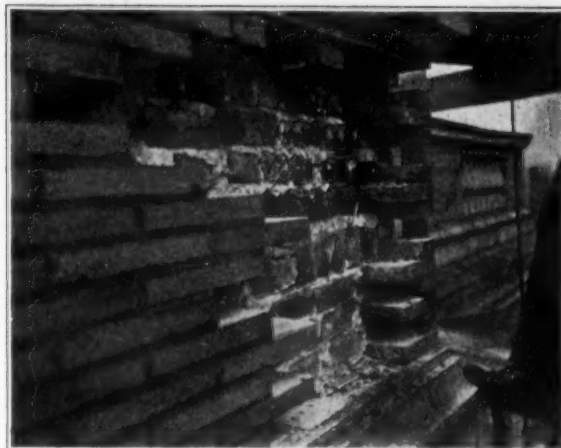
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The above shows how water, through frost and salt action, can damage joints. All bricks, after the first, were removed by hand.

CARDINAL SCHOOL PESTS

(Concluded From Page 36)

a mountain of wrath, and heard him threaten her with manual violence, she suddenly giggled like a girl who had heard something especially pleasing to herself. Neighbors state that she ogled at him for a full minute before she gathered up her little Totts and went away without the apron pattern.

Nor was that the last of it. For that night Mrs. Tott happened to mention to her husband, who was making one of his periodic visits to his city residence—her opinion of Professor Johnathan De Batt, and his fitness and qualities as a teacher.

"When he sets his mind on a thing," she declared, "there won't anyone on earth turn him away from it." And about a week later Mr. Tott went to Tarday City, and just happened to mention to one of his fellow directors of the Tarday City bank, that Johnathan De Batt was a man not to be trifled with, when he set his mind to govern a school. And this director of the Tarday City bank, who was a one time sheepman and respected Mr. Tott's opinions, happened to mention the same fact when he sat at a school board meeting that same week.

And since the Tarday City schools happened to need a firm hand in the control of the high school it so came about that Johnathan De Batt was chosen for the task, and there he is to this very day. And someone else might write a creditable story about you and me, telling why we happen to be where we are, and not where we figure we ought to be.

And that is all of this truthful story of a cardinal school pest if you will except a little incident which happened a year later. In the meantime Johnathan De Batt's amiable disposition had won a name for itself in Tarday City. Mrs. Tott's children were a bit larger

and she was quarrelling with the new principal in Gumbo Center who lacked Johnathan's suavity. Another twelve months of history had been enacted.

One day as Johnathan sat at the table a great smile suddenly illumined his face.

"What is it?" asked his wife. "Are you telling yourself a good joke?"

"No, I was thinking about the time our little girl had the mumps—back in Gumbo Center."

"There was nothing funny about that."

"Oh, I wasn't laughing about that. I was just thinking how unreasonable I used to be with Mrs. Tott."

ALL YEAR SCHOOLS AND THE SCHOOL PLANT

(Concluded From Page 39)

operate. The repair gang would always find pupils and teacher ready to shift to a vacant room while their own quarters were being renovated and redecorated.

In closing, I repeat that the twelve months' school may give the inefficient janitor and a lazy repair gang an alibi for a dirty, unkempt building, but the twelve months' school would offer no obstacles which might not be readily overcome by the resourceful, ambitious caretakers and repair gangs which are to mark the dawning of the day of more efficient schools.

ONE KILLED HERE!

(Concluded From Page 42)

move on. Likewise the teaching force should be urged to respect the social customs of the people among whom they serve. Attendance on Sunday ball games and movies by the teachers in a town where the Puritan tradition is still strong, has alienated the support of people who would otherwise have been the school's staunchest props.

Personal Neatness Essential

In one town, the superintendent would have stayed longer if he had mowed his lawn as often

as his neighbors. Another would have prolonged his term of service if he had kept better acquainted with the barber, the tailor, and the laundryman. People who do not believe in visiting the barber shop oftener than every six months had better seek some other position than the superintendency of a school system.

The superintendent must not forget that his success will be judged fully as much by his personal qualities as by his professional attainments. He is living in a glass house, and he must conduct himself accordingly.

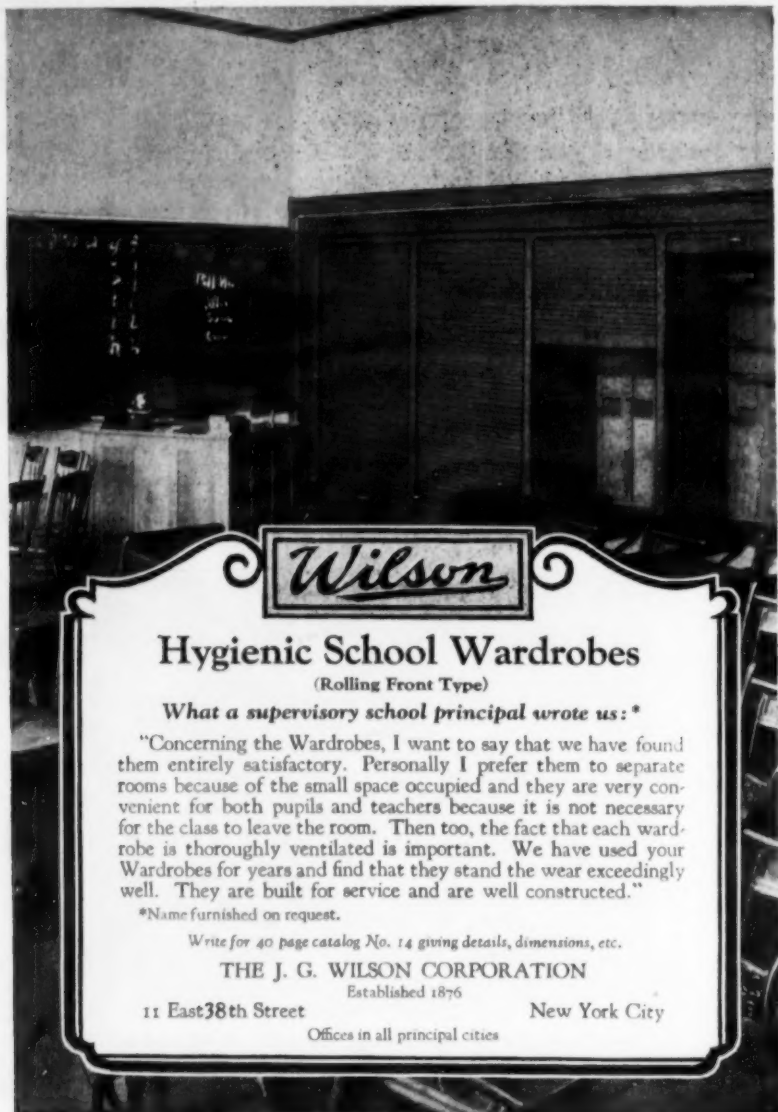
HIGH SCHOOL GROWTH IN CHICAGO

A remarkable increase in attendance in the Chicago high schools has been reported recently by Mr. Wm. J. Bogan, assistant superintendent in charge of high schools. The report indicates that while the attendance has risen 121 per cent in ten years, the increase in operating costs has been only 33 1/2 per cent. The figures for the school year 1914-15 indicate that the total enrollment in the high schools was 25,322 and the cost per pupil was \$86.25. For the year 1923-24 the high school membership was 55,989 and the cost per pupil \$153.04. Considering the fact that the purchasing value of the dollar in 1923-24 was less than \$0.60, the actual increase in cost was only 5.6 per cent although the actual expenditure per pupil was nearly double. During the year 1923-24 the high school salaries were \$6,938,267.93. The cost of maintaining the school buildings was \$8,180,654.55.

ANNOUNCE MEETING OF NATIONAL COUNCIL

The National Council of Schoolhouse Construction will hold its next meeting November 19th and 20th, at Harrisburg. The sessions will take place during Education Week and it is probable that the Friday slogan, "make Your schools livable" will be taken up in some of its important phases.

—A board of education in a Pennsylvania village sent a communication to parents against secret school societies. It was a sensible document. But, when it proved to be full of grammatical errors, the "skule" had the laugh on the "skule board."



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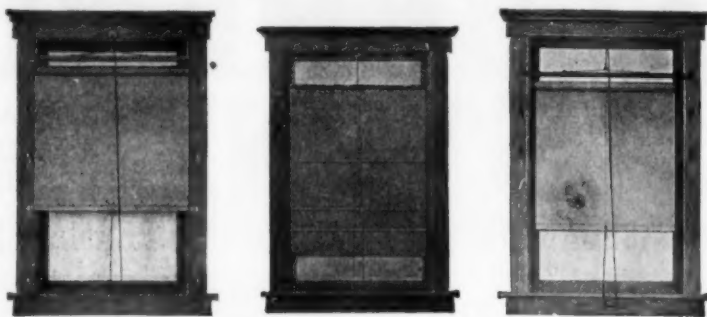
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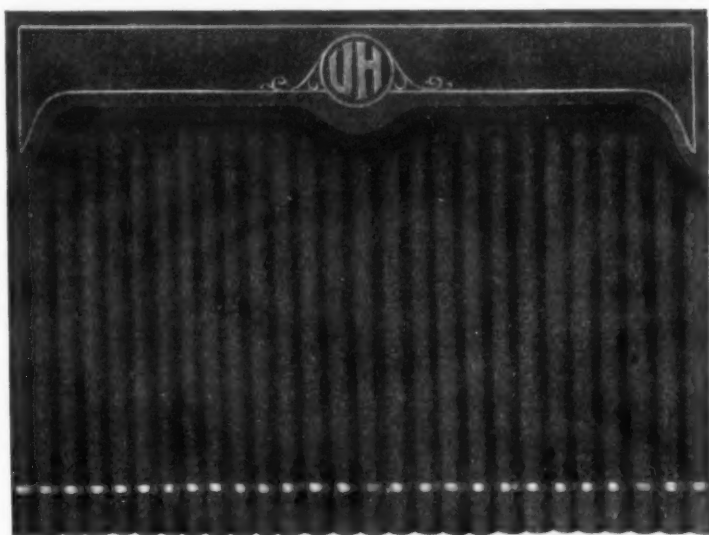
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School Board Journal

DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

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SAFETY STAIR TREADS

American Abrasive Metals Co.

SAFETY VAULTS

Shaw-Walker

SANDERS—DISC AND SPINDLE

J. D. Wallace & Co.

SASH OPERATING DEVICES,

STEEL

Detroit Steel Products Company

SASH, STEEL

Detroit Steel Products Company

Lupton's Sons Co., David

SASH, VENTILATING

Detroit Steel Products Company

SAWS—CIRCULAR, BAND

J. D. Wallace & Co.

SCIENTIFIC APPARATUS

Chicago Apparatus Co.

Rowles Co., E. W. A.

SCREENS—PICTURE

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Screen Corp.

SCRUBBING EQUIPMENT

Finnell System, The

SHOWERS

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Hoffmann & Billings Mfg. Co.

SIGNAL SYSTEMS

Holtzer-Cabot Electric Co.

SIRENS

Federal Electric Company, The

SKYLIGHTS—METAL

Lupton's Sons Co., David

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Kansas City Scenic Co.

Lee Lash Studios

Novelty Scenic Studios

Tiffin Scenic Studios

Twin City Scenic Company

Volland Scenic Studios, Inc.

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American Abrasive Metals Co.

Norton Company

Safety Stair Tread Co., The

Stedman Products Co.

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Blair Company, J. C.

STEEL CASINGS—Doors, Windows

Milwaukee Corrugating Company

STEEL SASHES

Detroit Steel Products Company

Lupton's Sons, David

STEEL STORAGE CABINETS

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Medart Mfg. Co., Fred

STEEL WINDOWS

Detroit Steel Products Company

Lupton's Sons Co., David

STOOLS, STEEL

Angle Steel Stool Company

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TALKING MACHINES

Victor Talking Machine Co.

TEACHER AGENCIES

Natl. Assn. of Teacher Agencies

Teacher Agencies Directory

TELEPHONE SYSTEMS

Federal Electric Co., The

Federal Tel. & Tel. Co.

Holtzer-Cabot Electric Co.

TEMPERATURE REGULATION

Buffalo Forge Company

Johnson Service Company

National Regulator Company

THERMOMETERS

Wilder-Pike Thermometer Co.

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A. P. W. Paper Company

Bermes Company, Daniel

National Paper Products Co.

Palmer Company, The

Robertson Products Co., Theo. B.

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Clow & Sons, James B.

Mills Company, The

Sanymetal Products Company

Structural Slate Company

Vitrolite Company

Weis Mfg. Co., Henry

TOWELS

A. P. W. Paper Company

Brown Company

National Paper Products Co.

Palmer Co., The

Robertson Products Co., Theo. B.

TYPEWRITERS

Underwood Typewriter Company

VACUUM CLEANING SYSTEMS

Spencer Turbine Company, The

VACUUM PUMPS

Nash Engineering Company

VALVES—FITTINGS

Clow & Sons, James B.

VARNISHES

Valentine & Company

VENTILATORS

Buffalo Forge Company

Globe Ventilator Company

Knowles Mushroom Ventilator Co.

Lupton's Sons Co., David

VENTILATING SYSTEMS

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Bayley Mfg. Company

Buckeye Blower Company

Buffalo Forge Company

Dunham Company, C. A.

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Nelson Corp., The Herman

Nesbitt, Inc., John J.

Peerless Unit Vent. Co., Inc.

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Greenfield Tap & Die Corporation

Sheldon & Company, E. H.

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Obelisk Waterproofing Co., The

WATER PURIFIERS

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Monarch Metal Products Co.

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Columbia Mills, Inc.

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WINDOW SHADES

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Columbia Mills, Inc.

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Maxwell & Co., S. A.

Ordinator Company

Steele Mfg. Co., Oliver C.

Wagner Awning & Mfg. Co., The

Western Shade Cloth Company

WINDOW SHADE HOLDERS

Allen Shade Holder Co., The

WINDOW SHADE ROLLERS

Columbia Mills, Inc.

Hartshorn Company, Stewart

Western Shade Cloth Company

WINDOWS, STEEL

Detroit Steel Products Company

Lupton's Sons Co., David

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Badger Wire & Iron Works

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After the Meeting



And Fresh All the Time

"Papa," said the small son, "what do they mean by college bred? Is it different from any other kind of bread?"

"My son," said the father, "it is a four years' loaf."—Evansville Crescent.

The Old Ones Are Best

The professor of geology had placed some specimens of rocks on his desk and was going to describe them to his students.

While his back was turned for a moment one of the students placed a piece of old brick among the rocks.

The professor went through the specimens, saying as he picked up each: "This is a piece of sandstone; this is a piece of granite," and so on.

At last he came to the brick, and, holding it up, he said, "And this, gentlemen, is a piece of impudence."

Verb Sap.

Teacher: "When was Rome built?"

Jimmy: "At night."

Teacher: "Now what makes you think that, Jimmy?"

Jimmy: "Well, my dad told me that Rome wasn't built in a day."

No Danger

It is told of a certain school professor that a girl student once asked him whether peroxidizing the hair is injurious to the brain.

"No," replied the professor, positively.

"Why I've heard it is," said the student.

"No," repeated the professor. "Any person who peroxidizes the hair hasn't any brain to injure."—Chicago News.

Master Was Engaged

A small boy in an expensive school had a mania for collecting trade catalogs. He wrote to the agents of a well-known make of car, using a piece of the school note paper. The agents, scenting business, replied by dispatching one of their supersalesmen with a \$5,000 car, which drew up one morning at the school's front door.

"Can I see Mr. —?" inquired the salesman in his best polished manner.

"I'll just inquire, sir," replied the maid, and presently came back with the message: "Will you kindly step inside, sir, and wait? Master — is just having his arithmetic lesson."—Chicago News.

They Did!

Dr. Brown was a physician and also professor in a university. Mrs. Smith was a polite old lady and wished to call him by the proper title. "Shall I call you 'doctor' or 'professor'?" she inquired.

"Call me whatever you wish, Mrs. Smith," he replied. "My friends sometimes call me an old idiot."

"Oh!" said the dear old soul. "But they are the people that know you very well, indeed."

Teacher—"Name a very popular general."

Bright Boy—"General holiday."—Boston



A Discoverer

"Jimmy," said the teacher, "come and point out America to the class, on the map."

Jimmy did so.

"Now, Johnny," went on the teacher, "can you tell me who discovered America?"

"Jimmy did," said Johnny promptly.

Bless Her Heart

"Now, children," said the teacher, who was trying to give her pupils a mental picture of a barrel, "the object I have in mind is large and round, and if laid on its side and started at the top of a hill, it would roll clear to the bottom. Now, who can tell me what it is?"

"All right, Minnie," beamed the teacher when a small hand went up, "what do you think I was describing?"

"The principal!"

Why, Teddie!

A little girl came running into the school-room crying bitterly.

"Teacher," she sobbed, "Teddie Stevens broke my roller skates!"

"How did he do it, dear?" inquired the teacher.

"I hit him on the head with them."

Must Be a Ventriloquist

"It's our son, Dennis, pa," exclaimed Mrs. Casey, who had just answered the phone. "He sez he won th' interscholastic debate!"

"Good fer the bye!" exclaimed the proud father. "Ask him how far he threw ut!"

At the Football Game

Friend of the Family—"And what college are you going to?"

Willie—"How do I know until the game is over?"—Chicago News.

"Now," queried the teacher, "can any one tell me what 'pauses' are?"

"I know," replied the youngster at the foot of the class, "that's what the cat hides her clawses in."—Chicago News.



ARE SCHOOL SEATS TOO HIGH?

"From a standpoint of posture and hygiene it is of no consequence if the pupil's seat be an inch or two lower than his correct measured seat height, but it is a serious matter if it be even a fraction of an inch higher. The high seat inevitably causes a ridge of pressure under the knees from the forward edge of the seat, and this continued and constantly recurring pressure interferes with both nerves and blood vessels, causing discomfort, restlessness and irritability besides tending to conditions favorable for the development of various nervous and circulatory disorders."

So writes Dr. H. E. Bennett, former head of the department of education of William and Mary College, in a recent number of Home, School and Community. He then presents the following discussion on the subject:

"The physical evil, however, is not so much in the direct and local injury as in the irresistible tendency to bad postures, sliding down in the seat, sitting on the foot, getting the knees in the desk or the feet in the seat in front, and various indescribable contortions, squirmings, and restless movements. The movement itself is probably a wholesome corrective though not conducive to mental concentration, but the seat which makes it constantly necessary is inexcusable."

"If there is room for the knees under the desk and the seat is not abnormally flat, there is no discomfort from nor hygienic objection to seats considerably lower than the exact measured height. There is no reason why knees or hips should bend at right angles. Sitting comfort (in a working seat) is secured by support at the seat bones and under the thick part or upper half of the thighs. In the lower, and consequently shorter seat, the child secures restful relief by moving his feet forward and back along the floor thus shifting the region of greatest pressure. In the high seat he can only touch the floor at one position, if at any, and hence secures relief only by some contorted posture."

"Recent extensive studies show that the average ratio of measured seat height to standing height is almost exactly .25, the ratio for 'chubby' young children, 'stout' individuals and most girls and women being rather lower and that of long-boned, hard-muscled boys being somewhat greater. Remembering that seats may well be lower but never higher than the measured height, it is found that about 60 per cent of school children may be seated in seats one-fourth of their standing height and the remainder in seats one to two inches lower."

"Many school boards purchase no seats of the smallest (No. 6) size which are made at a standard height of 11 inches, while careful measurements show that 82 per cent of first grade children require seats of this size or lower and only about one per cent of first grade children have a seat height measure as great as 13 inches. Similarly, 19 per cent of third grade children require No. 6 seats and 43 per cent require No. 5. In the high school, it is found that 26 per cent of the pupils should have No. 3 desks or smaller, 53 per cent should have No. 2, whereas many schools use only No. 1 which is too large for all but about 21 per cent, and most of these would be equally comfortable in No. 2."

"It is expected that complete tables for correct seat heights for typical grade rooms will soon be available, based on thoroughly scientific and widely distributed measurements. But the main point is as clear now as it can ever be, and that is that most schoolroom seats should be considerably lower than are used. The very few cases where they are too low will be evident in the case of the longlegged boys who cannot get their knees under the book box of the desks. The very many cases where injury results from their being too high are among the girls and frail, undersized children, as well as a large proportion of average and normal individuals."

"Whenever there is any pressure of the seat under the knees of a child seated with feet squarely on the floor, the seat is too high. When the heels do not rest on the floor at all, as the child is seated erect, it is seriously so. Most of our schools should be re-seated throughout by installing a supply of the smallest size seats in the primary rooms and moving the others up from grade to grade. If seats are adjustable, there should be a general letting of them down through all the grades."

NEW TRADE PRODUCTS

A New Bulletin Board and Tack Strip.—A bulletin board is as indispensable a part of every school building of any size as are corridors, stairways, and floors. So, too, a tack strip is as inseparably a part of every classroom as are the blackboards and the pupils' seats.

To every school the bulletin board is the silent reminder of future and past events, the indispensable advertising medium of school activities, the quickest method contact between principal, teachers, and pupils. To every class, the tack strip is the simplest and most effective aid for displaying creditable written work, drawings, paper cuttings, etc. To the resourceful teacher it is the easiest aid in decorating the room, in displaying materials for study, in interesting children in special days and seasons—in fact, the usefulness of a tack board is limited only by the resourcefulness of the teacher herself.

A type of bulletin board and tack strip which is gaining wide popularity is the Blastel Metal Back Cushion Cork Board made by the Blastel Manufacturing Company of Kansas City, Mo. This board is made of steel, coated on one side with a special composition of cork, five-sixteenths of an inch thick. The joint between the steel and the cork is permanent so that the board will not bulge or warp from any cause whatever. The cork is fully resilient and will not show perforations of tacks or pins. The Blastel Bulletin Board is made in any desired size and may be cut to fit any space. The board was originally made with a ply wood back and is still supplied in this style where desired.

Full circular matter and specifications are available for architects and school authorities.

TRADE PUBLICATIONS

Issue Winter Catalog. Albert Pick & Company, Chicago, Ill., have just issued their winter catalog, illustrating and describing supplies and equipment for school cafeterias and lunchrooms. The catalog illustrates coffee urns, electric hot water heaters, bouillon and fudge warmers, luncheonettes and steam tables, roll and sausage warmers, combination cream, milk and water coolers and electric cooking appliances, in addition to a large display of general kitchen and dining room equipment.

Ventilation of Auditorium. The Knowles Mushroom Ventilator Company has just issued a new catalog circular illustrating and describing the Knowles notch type air diffuser, Cambelback air diffuser, aisle hood air deflector, and the older types of single and double damper air diffusers, gallery riser ventilators—all special types of the well-known Knowles Mushroom fresh air diffusers. The circular contains complete specifications and technical details for use by school authorities and architects. An impressive list of recent installations in school auditoriums, theatres, etc., is included.